



THE ROYAL GOLD MEDAL, 1900: Presentation to the Commendatore RODOLFO LANCIANI, Professor of Roman Topography in the University of Rome, D.C.L. Oxon. [*Hon. Corr. M.*], Monday, 18th June 1900.

ADDRESS BY THE PRESIDENT, MR. WM. EMERSON.

AS the presentation of the Royal Gold Medal is an annual event it is perhaps scarcely necessary for me to remind you that it is an honour granted by Her Most Gracious Majesty, on the advice of this Institute, to a distinguished architect, scientist, or man of letters, who by his works directly, or it may be indirectly, has furthered the interests of the art to whose service the Institute is dedicated.

Professor Lanciani, to whom the Queen has done the distinguished honour of awarding her Gold Medal this year, desires me to say how deeply distressed he is at being prevented attending this evening to receive it; but his presence in Rome just now is imperative. Therefore Count Carobbio has been deputed by His Excellency the Italian Ambassador to receive it for him.

Since 1848, when the first presentation was made, the Medal has been conferred upon distinguished men of many nationalities, but only once during that time on a countryman of Professor Lanciani. In 1849 it was presented to that famous Italian Luigi Canina, whose voluminous works occupy an important place in our Library. Signor Canina and Professor Lanciani are united across the years by many bonds of sympathy, by the nature of their work, by their common interest in and love for the Eternal City of the Seven Hills. In this interest all architects must share, for is not the home of the Pantheon and St. Peter's one of the first objects of their pilgrimage? But although, as we know, all roads lead to Rome, it only gives up its secrets to a chosen few, whether architect or archaeologist. And to none has it been more communicative in this respect than to Professor Lanciani, who has contributed so abundantly to our general as well as special knowledge of the city in all its architectural aspects and historical phases.

On the occasion of these presentations it is usual to give some detailed and authoritative account of the life and work of the recipient. Professor Lanciani's life has been one of so much labour that the mere recapitulation of what he has accomplished would speak more eloquently of his many claims to distinction than any eulogy which might be pronounced from this chair. I must, however, content myself with a brief and general outline of his career.

Rome, which has been the scene of his labours, was also the city of Rodolfo Amadeo Lanciani's birth, which occurred on the 1st January 1848. Graduating first in philosophy and

mathematics in the Collegio Romano in 1867, two years later he again graduated in mathematics at the University of Rome, and a year later received the diploma of architect and engineer. In 1871 he assumed the post which brought him into touch with his life's work—the post of Assistant Director of Excavations, from which, three years later, he advanced to the position of Director, which he retained until 1890. He combined this position with the professorial Chair of Topography at the University of Rome, and at the same time acted as secretary of the Archaeological Commission of Rome.

I need not, perhaps, dwell on the prominent part which Signor Lanciani has taken in Roman excavations further than to mention the valuable results which he obtained from his work on the Sacra Via—on which he was engaged for four years—and from his excavations at the Thermæ of Agrippa, the House of the Vestals, the villa of Voconius Pollio at Marino, the theatre and barracks at Ostia, Nero's villa at Subiaco, and other works which are pretty generally known to students of Roman archaeology.

But it is not only from the earth that Professor Lanciani has brought fresh material to light. He believes in the importance of the unpublished document, and in other fields of original research than those of excavation his labours have been equally indefatigable and realised similar valuable results. Most of the principal European libraries, both public and private, are known to him, and his discoveries have been many and important, the fruits of which have appeared in his contributions to the Transactions of Italian and other learned societies. One of his proudest achievements in this direction is incorporated in his memoir on the *Aula e gli Uffici del Senato Romano* (Curia Julia-Senatus).

This brings me to his career as a writer. I understand that down to the end of last year no fewer than four hundred and seventeen contributions of one kind and another from his pen had been published. His first work, a catalogue of the Castellani Etruscan Collection in the capital, obtained for him the gold medal of the City of Rome, and his book on aqueducts (*I Commentarii di Frontino*), published in 1880, was recognised by the Royal Prize of 10,000 lire. One of his most recent works is *Forma Urbis Rome*, an archaeological plan of Rome in ancient, mediæval, and modern times. I am glad to hear that this important addition to archaeology and topography will shortly be followed by a similar map of the Campagna, supplemented by six volumes of text containing an account of archaeological research in Rome since the revival of classic studies. The extent of the ground covered by this work may be estimated by the fact that it will contain some twenty-five thousand hitherto unpublished documents bearing on the excavations.

Professor Lanciani adds to his many accomplishments an excellent knowledge of English (which makes his absence to-night the more regrettable), and his *Ancient Rome in the Light of Recent Discoveries* was written in English. He has at the present time a volume in the press entitled *New Tales of Old Rome*, which deals with his latest discoveries in the Forum and on the Sacra Via, and which will be looked forward to with interest alike by the archaeologist, the architect, and the historian.

Professor Lanciani's labours have been great, and it must be satisfactory to him to know that they have been widely appreciated. Many European Societies claim him as a distinguished member. Prussia, Russia, and his own country have conferred orders on him, and the Universities of Oxford and Glasgow, Harvard and Würzburg have extended to him the distinction of their degrees.

Signor Professor Lanciani is undoubtedly the greatest of Roman topographers, as is proved by his splendid work, the *Forma Urbis Rome*. Also he is great as an archaeologist, no matter what sneers may have been cast at him or ungenerous criticisms written on some of his work, because others, coming on the scene of the Forum excavations somewhat later than he,

dug a foot or so deeper and made discoveries which upset certain theories he had advanced. He nevertheless remains the man from whom some of those who cast stones at him had learned pretty well all they knew of Roman archaeology in the first instance. Surely it is no shame that on certain evidence one may make conjectures which on further evidence being produced may have to give way to other views. This is not sufficient to condemn any man, and certainly not one who has done so much really excellent work as Signor Lanciani.

COUNT CAROBBIO, I have the distinguished honour to hand you the Queen's Gold Medal for transmission to our excellent friend and confrère Signor Lanciani, and to express the thanks of the Royal Institute of British Architects to you for so kindly attending this evening to receive it on his behalf.

[The Secretary here handed the speaker a telegram from Professor Lanciani addressed to the President, which he opened and read to the Meeting as follows:—"President, William Emerson.—Present in spirit. Offer Institute heartfelt thanks.—LANCIANI."]

COUNT CAROBBIO, on receiving the Medal, tendered his best thanks on behalf of Professor Lanciani, remarking that he was proud of the great honour the Institute had conferred upon his countryman, and regretting that his imperfect knowledge of English prevented his replying more fully to the President's Address.

## THE ARCHITECTURAL CONGRESS, 1900.

THE Architectural Congress, held under the auspices of the Institute during the week beginning Monday the 18th of June, duly met for the various functions and purposes detailed in the programme issued to members, and printed in the Supplements to the last two numbers of the JOURNAL. The proceedings were arranged by a General Committee consisting of the following gentlemen:—

Mr. Wm. Emerson, *President R.I.B.A.*; The Rt. Hon. the Earl of Meath; The Rt. Hon. Lord Windsor; The Rt. Hon. Lord Strathcona and Mount Royal, G.C.M.G.; The Rt. Hon. A. Akers-Douglas, M.P.; Sir William B. Richmond, K.C.B., R.A. [H.A.]; Sir John Taylor, K.C.B. [F.]; Sir Lawrence Alma-Tadema, R.A. [H.A.]; Mr. C. Purdon Clarke, C.I.E. [F.]; Mr. Alfred Waterhouse, R.A., LL.D. [F.]; Professor Aitchison, R.A. [F.]; Mr. G. F. Bodley, A.R.A. [F.]; Mr. G. J. Frampton, A.R.A. [H.A.]; Mr. Aston Webb, A.R.A. [F.]; Mr. John Belcher, A.R.A. [F.]; Mr. Walter Crane; Mr. Selwyn Image, Master of the Art Workers' Guild; Mr. Rowand Anderson (Edinburgh); Mr. H. J. Austin (Lancaster); Mr. Reginald Blomfield; Mr. Basil Champneys; Mr. John Douglas (Chester); Mr. W. H. Lynn, R.H.A. (Belfast); Mr. Mervyn Macartney; Mr. Ernest Newton; Mr. E. S. Prior; Mr. Halsey Ricardo; Professor F. M. Simpson (Liverpool); Mr. W. M. Fawcett, *Vice-President*; Mr. E. A. Gruning, *Vice-President*; Mr. J. M. Brydon, *Vice-President*; Mr. Alex. Graham, F.S.A., *Hon. Secretary*; Mr. John Slater [F.]; Mr. H. H. Statham [F.]; Mr. Paul Waterhouse [F.]; Mr. J. J. Burnet, A.R.S.A. [F.]; Mr. Leonard Stokes [F.]; Mr. J. S. Gibson [F.]; Mr. H. V. Lanchester [A.]; Sir Thomas Drew, R.H.A., *President Royal Institute of Architects of Ireland*; Mr. Joseph Smith [F.], *President Sheffield Society of Architects and Surveyors*; Mr. A. E. Sawday [F.], *Leicester and Leicestershire Society of Archi-*

*itects*; Mr. R. I. Bennett [F.], *Manchester Society of Architects*; Mr. David Barclay [F.], *President Glasgow Institute of Architects*; Mr. William Glover [F.], *President Northern Architectural Association*; Mr. W. L. Bernard [F.], *Bristol Society of Architects*; Mr. Robt. Evans [F.], *President Nottingham Architectural Society*; Mr. E. A. Ould [F.], *Liverpool Architectural Society*; Mr. W. H. Bidlake [F.], *President Birmingham Architectural Association*; Mr. W. Carby Hall [F.], *President Leeds and Yorkshire Architectural Society*; Mr. Charles King [F.], *President Devon and Exeter Architectural Society*; Mr. T. M. Cappon [F.], *President Dundee Institute of Architecture*; Mr. W. Bell [F.], *President York Architectural Society*; Mr. J. Coates Carter [F.], *Cardiff, S. Wales, and Monmouthshire Architects' Society*; Mr. J. Souttar [F.], *Aberdeen Society of Architects*; Mr. Henry F. Kerr [A.], *President Edinburgh Architectural Association*; Mr. J. Douglass Mathews [F.]; Mr. Thos. W. Cutler [F.].

### MONDAY'S PROCEEDINGS.

#### Presentation of the Royal Gold Medal.

The proceedings opened on Monday evening with a reception by the President in the rooms of the Institute. Among the numerous company assembled were Count Carobbio, Secretary to the Italian Embassy, Sir L. Alma-Tadema, R.A., Sir Henry Howorth, M.P., Sir John Taylor, K.C.B.; Past Presidents Mr. F. C. Penrose, F.R.S., and Professor Aitchison, R.A.; Sir Thomas Drew, President of the Allied Society in Dublin, Mr. Charles King, President of the Devon and Exeter Society, Mr. W. Carby Hall, President of the Leeds and Yorkshire Society, and representatives from various other Allied Societies; Professor Neckelmann, of Stuttgart [*Hon. Corr. M.*], &c.

The Meeting was graced by the presence of several ladies.

Following the reception came the first business of the Congress, viz. the Presentation of the Royal Gold Medal for the year 1900. In the absence of Professor Lanciani, whose engagements prevent his leaving Rome at this season of the year, the Medal was received on his behalf by his friend, Count Carobbio, of the Italian Embassy in London. The President's Address, briefly sketching the career and labours of Professor Lanciani, is printed on foregoing pages.

#### Exhibition of Photographs of Ancient Greek Monuments.

The rest of the evening was occupied with a Lantern Exhibition of photographs representing the most interesting monuments remaining of ancient Greece. The slides were lent for the occasion by Mr. R. Phené Spiers, having been prepared from photographs taken by his brother, the late Mr. E. G. Spiers, while travelling in Greece some years ago. There were also one or two of the Acropolis, lent by Mr. Hugh Stannus. As the views were thrown upon the screen, an interesting description was given by Mr. Penrose of the various buildings represented, and the actual condition of the remains at the present day. Among them were views of the Propylea, the Parthenon, the Erechtheum, the Temple of Theseus, the Great Temple of Jupiter Olympus, and various other remains in and about Athens; a Temple in the Island of Egina; the Theatre of Epidaurus; the Citadel of Tiryns; the Citadel of Mycenæ; the Treasury of Atreus; and several buildings in Olympia, where, Mr. Penrose stated, by the energy of the Germans and the great liberality of the German Emperor, has been excavated an enormous area, bringing to light a city scarcely inferior to Pompeii in preservation. On the walls of the room were hung a series of water-colour drawings of some of the buildings represented in the photographs, the work of Mr. R. Phené Spiers, F.S.A.

At the close of the exhibition the President asked the Meeting to accord a vote of thanks to Mr. Penrose for his great kindness in coming to the Meeting and giving them so lucid a description of the various buildings. Looking at the photographs and listening to Mr. Penrose's account of the remains gave those who had never seen those wonderful buildings an excellent and vivid idea of them and their surroundings. The photographs brought before them very strongly the greatness of the grand old architects of classic Greece, making their own efforts appear very small indeed beside those wonderful works of antiquity. The conviction was forced upon them that it was hopeless to expect, with our modern requirements and climatic conditions, to equal the grandeur of the architecture of those days.

The Meeting concluded, the visitors adjourned to the Council-room, where refreshments were served.

#### TUESDAY'S PROCEEDINGS.

##### The Desirability of Official Control over the Architecture of our Towns and Cities.

The second Meeting of the Congress was held on Tuesday afternoon at three o'clock, when the President, Mr. Wm. Emerson, took the chair, and read a Paper on "The Necessity for Official Control over Architecture in our Towns and Cities." In his opening remarks Mr. Emerson observed upon the need for control over the artistic, the æsthetic side of architecture. In matters of construction efficient control was exercised, but in the great public streets and places people were at liberty to erect any kind of building they pleased, provided it conformed to the construction clauses of the Building Act and by-laws. The need for such control was felt by people of culture both at home and abroad, and the subject was down for discussion at the forthcoming Architectural Congress in Paris. Discussing the question of the constitution of the controlling body, Mr. Emerson suggested that, were such control to be established, there should be a responsible head, whether Government Minister or not, and he should be chosen not only for his administrative or political capacities, but for his known possession of cultivated taste, large Imperial ideas, and love of art, combined with practical common sense, and he should not have the power to overrule the committee's decision. The committee should be formed of the best men among the Royal Academicians, Royal Institute of British Architects, and other artistic societies. The view of the majority should be final in all schemes, public or private, which affected the *ornato pubblico*. For the Metropolis, in which the whole empire was interested, such a controlling body should be a Government Ministry of Fine Arts; while each provincial town or county council should have the right to elect its own committee.

Sir John Taylor, in proposing a vote of thanks to the President for his Paper, said he doubted whether the recommendations of such a body as that suggested would have a better fate than those made by the Office of Works, which had been more than once set aside. In the most recent case the Government had had the assistance of the Institute in the selection of the architects invited to erect new public offices, and in taking that course the result had been very much what the President had asked for.

Mr. Wm. Woodward seconded the vote of thanks, and pointed out that the committee referred to by Sir John Taylor applied only to the Office of Works, whereas the President's suggestion applied to the whole country. He referred to notable instances of disfiguring structures which London



would have been spared had such a controlling body existed as that advocated.

Mr. Wm. Young pointed out that already on all the great London estates designs had to be submitted and approved. He thought they might carry control too far, and asked why, instead of a controlling body, there should not be an advising body. Altogether, he felt it was better to endure the ills they had than to fly to others they knew not of.

Mr. Hippolyte J. Blanc, of Edinburgh, said what was wanted was the education of the architect, and the true appreciation of the architect's works by the public. Control was needed, but not too hard and fast. He did not like the word "control"; the committee should be a sort of watch committee to make suggestions, and should be composed of competent architects and laymen.

Mr. Day, of Worcester, thought that control in design would be very beneficial to the community at large. He feared, however, that the scheme suggested in the Paper would be looked upon by the ordinary layman and many public bodies as an unnecessary interference.

Mr. F. R. Kempson, of Cardiff, thought that a committee to advise would be better than one to dictate.

Mr. Joseph Smith, of Sheffield, said that there was urgent need for a different order of things, and that the scheme suggested by the President might usefully be tried.

Mr. Arthur Cates felt that, however desirable the aim, the scheme was somewhat Utopian in character, and would meet with considerable opposition under the existing conditions of Treasury control as regards public buildings, and that Parliamentary control so highly cherished by members of the Legislature.

Other speakers were Messrs. E. W. Hudson and Zeph. King, and the President having replied to various points raised, the Meeting terminated.

#### The Conversazione at Guildhall.

In the evening some thirteen or fourteen hundred persons enjoyed the hospitality of the President and Mrs. Emerson at a *Conversazione* given at Guildhall, by kind permission of the City Corporation. The guests were received by the host and hostess from 8.30 to 10 in the great hall. Among those who accepted invitations were His Excellency the American Ambassador, the Lord Mayor and Lady Mayoress, Alderman and Sheriff Sir William Treloar, the Lord Mayor and Lady Mayoress of Leeds, Sir Wm. Richmond, R.A., Mr. E. J. Gregory, R.A., Col. Sir Herbert Perrott, Lieut.-General the Hon. Sir Andrew Clarke, G.C.M.G., Agent-General for the Colony of Victoria; the Hon. J. Alexander Cockburn, Agent-General for the Colony of South Australia; the Hon. Sir Horace Tozer, K.C.M.G., Agent-General for Queensland; the Hon. E. H. Wittenoom,

Agent-General for West Australia; Dr. W. S. Church, President Royal College of Physicians; Mr. Kelly, Chief Justice of the Niger Colony; the Mayors and Mayoresses of Darlington, Richmond, Southport, and Wednesbury, the Mayors of Cheltenham, Croydon, Guildford, and Preston, the Masters of the Worshipful Companies of Armourers and Braziers, the Fishmongers, the Ironmongers, the Leathersellers, the Merchant Taylors, the Founders, the Vintners, &c. The band of the Royal Artillery, conducted by the Cavaliere L. Zaverthal, R.A., played in the great hall all the evening, and a vocal concert was given in the New Council Chamber under the direction of Mr. Fred Walker, R.A.M. Further attractions were the Guildhall Loan Collection of Pictures, a Collection of Photographs of Buildings erected by British architects during the last ten years, Architectural Sculpture and Ironwork, and Architectural Drawings and Sketches of Ancient Buildings. Of special interest were the six sets of designs submitted for the Old Bailey Sessions House Competition, which has at last been decided in favour of Mr. E. W. Mountford. In the Library were displayed a collection of rare books and MSS., kindly arranged by the Librarian of Guildhall, Mr. Charles Welch. Guildhall lends itself admirably for the purposes of an immense social gathering such as that here chronicled. The floral decorations, consisting of palms, foliage and flowering plants, were tastefully arranged by Messrs. Simmonds, and refreshment was served by Messrs. Gunter. When the company separated at about 11.30, the feeling was universal that the evening had been a very delightful one.

#### WEDNESDAY'S PROCEEDINGS.

##### Collaboration of the Architect, the Painter, and the Sculptor.

The morning meeting of Wednesday was devoted to Papers on "The Collaboration of the Architect, the Painter, and the Sculptor," by Mr. E. W. Mountford, Sir Wm. Richmond, R.A., and Mr. Roscoe Mullins. Mr. Wm. Emerson presided.

Mr. E. W. Mountford said that the subject was becoming daily more and more deserving of their consideration. Architecture was not to be considered as dependent for its perfection on the assistance of sculpture and painting. Many of our most admired ancient buildings were destitute of either, and the work of our greatest living architect was conspicuously free from any such assistance. But they would probably be perfectly agreed upon the great desirability of inviting the aid of their brethren of the brush and the chisel to beautify and embellish their buildings whenever it was possible to do so—that is to say, when it might please their clients to provide the means. Supposing that they had been entrusted with the erection of a building for which there were ample funds, so that they might with a good conscience invite an eminent sculptor and an

eminent painter to help in making it as beautiful as they knew how, then they began to understand that there was some enjoyment in life after all, and proceeded to their work with even more than usual enthusiasm. As soon as the rough sketches were completed they would desire to consult their chosen fellow-workers, and from that time until their joint creation stood accomplished the more frequent their intercourse the better for their building. It must not be forgotten that the building was the thing, and the architecture was not to become a mere background for the painting or sculpture. These latter were means to be employed for giving additional interest and beauty to the building, explaining its purposes, its uses, and its history or the history of its builders, becoming part of the architecture itself, and not to be thought of otherwise. Sculpture he regarded as being much more a necessity for important buildings than colour decoration, which was rather a luxury seldom to be attained.

Sir Wm. Richmond said that the spirit of the true artist should preside over all their labours, great or small—a spirit which induced spontaneity of design, and which prompted sincere endeavour to carry it out with clearness, which should be the expression of themselves, and therefore with style. Style was what was wanted and was so often absent, the impression of the mind and hand of the artist. Of “styles” most of them wearied; their use, more often than not, implied absence of invention, and was but an attempt to revitalise corpses. The collaboration of the architect, sculptor, and painter ought not to be difficult. To be successful the architect should not interfere with the sculptor or painter, *qua* their designs; this he would not need to do if his style was his own, for if they were true artists they would give and take according to the requirements of their arts as well as for each other's art. They would each respect the other's province, that of the architect as the designer or builder of the structure; of the sculptor as the designer and carver of effigies, ornament and its attendant parts; of the painter, the designer and executant of the pictures, their borders, &c., and their colour scheme. But both sculptor and painter must give way to the architect upon matters of scale, of proportion of part to part, so that their work should be harmonious in scale with his; of quantity, of projection, whether in the round or relief, of the fairness or depth as to tone of the painter's scheme. So would they labour in harmony. While architects insisted upon “styles” they would get no first-rate sculptors or painters to aid them or to work with them. For the adornment of “styles” they had to continue to go to “firms,” where they could be provided with as many shams as they required, all quite lifeless and hopelessly out of touch with the movement of this, or for the matter of that

with any period, because they did not reflect it. As long as “styles” were abjectly adhered to, art must remain dead! As soon as architects designed original buildings—which, by the way, here and there they did, irrespective of severe canons of proportion and orders, but structurally consequent and individual—they would find plenty of sculptors and painters to work with them; but as long as they designed in “styles” no original men would be slaves to them. Finally, of course, the architect was the responsible person; therefore he should be a thoroughly equipped artist. Would it not be possible to avoid too early specialising? How few architects there were who knew anything about colour! How few painters were even indirectly interested in architecture; and how few sculptors learnt to be an attendant upon architecture! And what a loss it was to each that he was so ignorant of his sister arts! The well-equipped designer was able to cover a large field of action. If he could design in one material, why not in another? None of the techniques were so enormously difficult, either of building, carving, or painting, that they could not be acquired by patience, given the artistic temperament. It was the artistic use of techniques acquired by experience which succeeded, or the reverse, in exact relation to the quantity of intelligence and judgment that had been put into it. Advanced students should, he thought, be encouraged to collaborate. Given a model designed in conclave, made by the architect, to be sculptured by the sculptor, and decorated by the painter, how interesting such efforts would become! What a stimulus they would give to the three arts! Each student having thus become conversant with the arts of his colleagues would be in a position to criticise as well as to appreciate them. The three arts would thus grow up, as it were, together; they would not be strangers to one another. The great mother of the arts, architecture, would take to her children again, who had separated from her, as she had from them, to their and to her privation. They were individually striving to render England more beautiful; let them try to do so collectively. Let them strike out for freedom—not licence, but freedom based upon the only sound foundation, sincerity, combined with knowledge of the various branches of what, after all, was but one art.

Mr. E. Roscoe Mullins maintained that a sculptor was only truly working out his art in its highest conception when he was working in unison with architecture, and was controlled and inspired by its conditions and limitations; and in so far as the willing hand of architecture was not held out to sculpture, the art suffered. The natural and rightful place for sculpture was in connection with or upon buildings, which it should ennoble and beautify by its presence. The treatment of sculp-

ture should depend upon the particular lighting that the chosen position and the surroundings would give it; and much of its shape, arrangement, and effect must be due to the space allotted for its filling. This was not the popular view of the art, but that it was the true one a glance at the past great periods would prove. In the days of the Renaissance it was equally so; Michael Angelo, Donatello, Luca della Robbia, Ghiberti, all collaborated with architects, and their best work was done for architecture. In the Gothic days, too, this truth was equally apparent, as a visit to the chapels and tombs at Westminster abundantly proved. It was only in these days that the direct union had been lost and the art had been conceived as standing alone, and, like painting, thought to be free and independent. He considered it essential that the sculpture, whatever its character and wherever placed, should be seen in its entirety, and that the form the work took should be the suitable one for the position—not as in the case of the frieze that ran round the Athenæum Club in Pall Mall, and, again, that over the gateway at Hyde Park Corner, which were copies of the well-known Panathenaic frieze of the Parthenon, but which were placed under quite different conditions of light and position from those which guided the architect and sculptor of the Greeks in their choice of the style of relief. To sum up, the points he would insist upon were these—that it was against the best traditions of the past to divorce the arts of architecture and sculpture; that this divorce led to a low estimate of sculptural decoration, as well as to a want of direction and meaning in the sculptor's work; that gallery exhibitions of isolated works belittled the art of sculpture; that portrait sculpture was shorn of its character and truth, which could only be truly given when incorporated in a wide scheme of decoration. For these reasons he maintained that a healthy demand for sculpture and a capable and satisfactory development of the art could only be attained by returning once more to the traditions of the past and effecting a closer union of the kindred arts, architecture and sculpture.

Discussion on the Papers followed, contributed to by Mr. H. Selwyn Image, Master of the Art Workers' Guild, Mr. Heywood Sumner, Mr. Beresford Pite, Mr. Aston Webb, A.R.A., Mr. Seth-Smith, Mr. William Woodward, Mr. H. G. Ibberston, Mr. A. N. Paterson (Glasgow), Mr. Geoffrey Lucas, and the Chairman. A vote of thanks passed to the readers of the Papers was briefly responded to, and the Meeting terminated.

#### Visit to the New Westminster Cathedral.

The first visit of the Congress was paid on Wednesday afternoon to the New Westminster Cathedral. The architect, Mr. J. F. Bentley, although suffering from an indisposition which

gave him great pain and prevented him speaking, was in attendance. The features of the building were explained by the Rev. Canon Johnson, for whose clear and energetic account the thanks of the Institute are due. A model of the building was inspected afterwards in the house of the Cardinal Archbishop, where tea for the hundred and fifty visitors was provided by the kind hospitality of his Eminence. After tea the buildings attached to the Cathedral, including the new Cardinal's house, were inspected under the guidance of Canon Johnson.

#### "The Ideal City."

At the evening meeting on Wednesday, Mr. E. A. Gruning in the chair, Papers under the title of "The Ideal City" were read by Mr. Halsey Ricardo, the Earl of Meath, Chairman of the Metropolitan Public Gardens Association, Mr. W. D. Caröe, F.S.A., and Mr. T. Stirling Lee.

Mr. Halsey Ricardo said that such a standard of magnificence as Rome achieved might be ours did we desire it. The trouble is that we are not agreed as to what we want, and we are not sure that we ought to want it. What were the people's ideals? Architects wanted to know, for it was the people's ideals that they had to carry out. Directly people were agreed upon some public matter, an architecture sprang up in response, and according to the quality of the sentiment, so was its interest. The hospitals we have built to alleviate suffering and to increase our knowledge as to its prevention form one of the contributions of fine living architecture to the nineteenth century. So, too, are the great asylums. Other contributions to the architecture of the time are the Board schools, museums, public libraries, and technical institutes, based also on a popular desire to improve the conditions of our life. Abate something of the virtue of the impulse, and the standard of interest in the style of architecture falls immediately. Theatres, restaurants, gin-palaces, all rise in response to the popular call. In these instances there is some codification of the public desires, but it is not so in the general treatment of our cities. The author indicated the direction improvement might take towards the ideal in London, advocating more obvious and direct access to such of our streets, buildings, squares, parks, &c., as are generally considered embellishments of the city; embanking the river on both sides, and giving wider and less squalid glimpses of it than often now afforded; more general traffic on the river pleasant to the eye and handy to the passenger; abolition of unnecessary street noises, street cries, &c.; more good music in the streets, and also on the water; more control over street distractions in the way of advertisements; laying out of thoroughfares for the better direction of traffic; the provision of back-waters and retreats, shelters for our public monuments; such natural

colour in the streets as may be afforded by the use of grass, trees, shrubs, and flowers; the employment of colour as symbolising some general purpose and aspiration.

The Earl of Meath read a Paper dealing with Parks and Open Spaces, prepared by Mrs. Basil Holmes, Hon. Secretary of the Public Gardens Association. The author said that the plan so much in vogue some fifty or a hundred years ago of building houses in "squares" had much to commend it. But such squares should not surround gardens enclosed with railings to which entrance was only allowed to the tenants of a certain limited number of houses. The square gardens should resemble the Continental "places"—open day and night, provided with grass, trees, fountains, flower-beds, and seats, and, like the surrounding streets, be under the control and patrol of the police. The wider roads should be planted with trees, either near the houses or in a double row in the centre of the carriage-way; this would afford shelter in rain and shade in sunshine. All the public elementary schools should have good playgrounds attached, open to all comers out of school hours; and in addition to these there should be separate spaces, playing fields, or open-air gymnasias provided for children, with proper instruction in the use of gymnastic apparatus, so that it might be impossible for any house in the city to be situated more than a quarter of a mile from a public playground. And these playgrounds should be attractive as well as useful, with a part set aside for trees and shrubs, flowers and seats. No large division or ward of the ideal city should be without its park, capable of being illuminated by night, where broad expanses of grass might be seen, and where stretches of water in lakes or streams might bring refreshment to the eye. The public seats should be in groups, in well-lighted parts of the thoroughfares; the drinking fountains and troughs should be artistically designed and pleasant to look upon; outdoor annexes to the restaurants should be encouraged; and every effort should be made to beautify the streets—not monotonously, but with taste and variety, and above all to preserve the natural beauties of any space or garden which might be secured for the people.

Mr. Caröe's Paper dealt with the subject of "Streets and Bridges considered in connection with our *unideal* City." He said that the question of straight streets or curved arose when the plan concerned new cuttings to be made, not the following or widening of old thoroughfares, formed as they mostly were upon the curved lines of once wandering country lanes or dykes. The cutting of a straight street through a district already irregularly streeted at once landed them in the difficulty of all kinds of awkward and canted corners. Nothing could be more unhappy than the sudden ending of a large building in a sharp

acute angle. He personally concurred unhesitatingly in the desire expressed by the London County Council for a monumental treatment in dealing with the Strand island and its approaches, and would gladly see such treatment continued as far as Holborn. But a monumental treatment need not mean the continuation of one uniform design throughout the whole length. Might not each block between the intersecting side streets be treated separately as a whole, it being essential in this case (as it was, indeed, in the whole matter) that the exterior, at any rate, of each such block should be under the control of one competent architect? Thus they might secure a result at once monumental, varied, and interesting, and not of a more than Parisian monotony. Turning to the question of bridges, the lecturer said that not for one moment did he depreciate the vast benefits to the human race conferred upon it by modern engineering skill. Had they only been as artistically successful in constructing their bridges as English engineers had been in the outward forms of their best locomotives there would be no complaint, but only admiration for all their work. But the problem was not the same. Quite absent from the locomotive, into the engineering problems of the bridge entered the element of architectural scholarship; and this the engineers had, with a few noble exceptions, made no attempt to master. He wished specially to insist upon the essentially monumental character of a great bridge. A bridge across the Thames was upon the same plane of monumental and architectural importance as St. Paul's itself, and demanded the same developed architectural power to design or to embellish it.

Mr. Stirling Lee, who followed, considered "The Ideal City" mainly from the sculptor's point of view.

In the discussion which ensued the following gentlemen took part:—Mr. H. E. Milner, Mr. Owen Fleming, Mr. Arthur Cates, Mr. Charles Hadfield (Sheffield), and Mr. Ernest Prior. A vote of thanks to the authors of the Papers was passed by acclamation, and Messrs. Ricardo and Caröe having replied, the Meeting separated.

#### THURSDAY'S PROCEEDINGS.

##### Visits to University College Hospital Extension and to Stafford and Bridgewater Houses.

On the morning of Thursday, Mr. Alfred Waterhouse, R.A., took visitors over his extension to University College Hospital. In the afternoon, in spite of pouring rain, some hundred and fifty members of the Congress visited Stafford and Bridgewater Houses. Mr. Fish, the surveyor to the building, conducted the party over Stafford House. The house was begun by Sir Robert Smirke and continued by Benjamin Wyatt, and it belongs to the Duke of Sutherland, by whose kind



permission the visit was made. The thanks of the Congress are also due to the Earl of Ellesmere for throwing open Bridgewater House, one of Sir Charles Barry's buildings, to the Congress, and for the unrestricted liberty afforded to members of wandering through the rooms on the ground and first floors, including the noble picture gallery.

#### The Education of the Public in Architecture.

At the Meeting on Thursday evening, Mr. J. M. Brydon presiding, Mr. Reginald Blomfield read a Paper on "The Education of the Public in Architecture." The author said that the subject of his Paper pointed to the fact, with which architects were painfully familiar, that the public did want educating in architecture very badly. What they were concerned with was the general standard of intelligence in regard to architecture; the appreciation and misappreciation of the art as shown by current judgments, whether in the press or elsewhere; the evidence of taste displayed in actual buildings which reflected the average opinion of the times. The attitude of the man in the street was the problem with which they had to deal. There could be very little doubt that the attitude was far from satisfactory. Any competent observer who took note of the average of architecture in our great cities would be driven to the conclusion that the general level of taste and ability was low; further, he would find that some of the least admirable of these buildings were the most admired; and lastly, if he compared his observations not only with the criticisms of the press, but with individual opinion, he would find no common standard of appreciation, merely a mass of unrelated judgments amounting to little more than individual expressions of like or dislike. The uncertainty of taste shown in the treatment of public buildings of the last fifty years—shown, he did not mean by architects, but by the authorities responsible—was conclusive evidence of the confusion of judgment which existed in the minds of our representative public men. It was evident that the authorities had no sort of principle to guide them, and so the pendulum swung backwards and forwards. There seemed to him, generally speaking, to be three channels through which public opinion could be reached—(1) by direct school teaching; (2) by treatises; (3) by the work of architects themselves. In most of their important public schools there was an art museum of some sort, a drawing class, run on rather old-fashioned lines, and usually some intelligent master with a cultivated interest in the antique and a sentimental attachment to Early Italian art. What was wanted was a more complete organisation of this teaching and a more comprehensive scope. What he thought might be possible would be (1) to provide a well-selected set of architectural drawings of well-known buildings,

and the simplest possible technical diagrams, such as should be easily intelligible to the schoolboy mind; (2) to give an occasional reading in architecture, dealing with its simplest points, and illustrated by models and clear drawings. Some sort of architectural text-book for beginners was, in fact, badly wanted; but the necessity of extreme clearness and simplicity of treatment, in addition to a comprehensive grasp of the subject, made the preparation of such a text-book a matter of very great difficulty. It had been suggested that a series of plain pattern books for builders, giving working drawings of quite simple designs for doorways, windows, and the like, would save them from the utter vulgarity of the great majority of modern buildings in this country. It would be a most useful and practicable task if a committee of architects of recognised competence could be formed to superintend the issue of some such series of pattern books. Lastly, they came to the most important means of educating the public in architecture, their own work. They must set their own house in order before they could sweep and garnish that of the public. Perhaps at this moment the two worst faults of our architecture were, first, the total absence of any sense of style, that kind of design which snatched up any sort of detail and tacked it on to any kind of building, and of which there was abundant illustration in most of our own streets. But there was another and rarer fault, and the more dangerous because it was the vice of a virtue, and this was a certain preciosity, what Pliny called *quedam artis libido*, which ran into frantic experiments after something new and altogether original. Both of these faults could only be attacked by a more thorough and intelligent education of the student, and by a clearer appreciation in their own minds of the province and ideal of architecture.

Professor F. M. Simpson (Liverpool University) said that the education of the public in architecture must depend entirely upon the education of the architect. If buildings improved, the education of the public would follow as a matter of course, because they would be surrounded by good examples instead of bad ones.

Mr. Basil Champneys differed from the last speaker; for, however good our architecture, he could not see how it was to flourish without popular appreciation. Other arts suffered from this want of appreciation almost as much as architecture. But with sculpture and painting there was more or less a fashion of appreciation, and a more or less organised body of criticism. With architecture this was lacking, and there was no organised criticism which was in touch with the general public. He was not in favour of the suggestion about pattern books of windows and doors, for he was afraid the speculating builder, with the encouragement of the client, would put the wrong windows to right doors. A flank

movement in architectural strategy was necessary. Mr. Blomfield's "History of the Renaissance" was precisely the sort of thing for the public—a work of a high literary standard, which people of literary attainments had read as a book even when they had no particular interest in the art.

Mr. E. S. Prior said that Mr. Blomfield had laid down an excellent plan of campaign for the treatment of the public, and had set forth what might be called the strategy and tactics of the matter. He had given them ideas suitable in a congress like that, uniting the provincial with the metropolitan followers of the art, in order to advance as a great army to carry the flag of architecture into the enemy's camp. By such methods they ought to be able to win their way, though his only difficulty was as to the public, who held such entrenched positions—positions, however, which they vacated one after the other as uneducated as ever. In concluding a very humorous speech, Mr. Prior observed that he was afraid the public did not get architecture from architects, because architects had no architecture to give them.

Mr. Paul Waterhouse asked whether the public ever had been interested in architecture. Was there evidence to prove that in the great architectural ages of the past the public had shown a learned interest in architecture? He thought they should leave the public alone in the matter. Architecture was a big thing to educate the public in. It was easy to teach them the outlines, the A B C of architecture, but that deeper knowledge which would give them the critical faculty could not be imparted without a very great deal of study. Architects had their own house to set in order; there must be no ignorance amongst architects, and it was to ensure this that there were to-day architectural schools and examinations. There were many architects who were enemies to examination, but they were friends in agreeing that an architect could not be made by examination. Friends of examination did not regard it as the winged sandals of Mercury, but as a means of making sure that ignoramuses were not let into the profession. It was the general education of architects that was wanted to command respect, and not a mere knowledge of technicalities.

Mr. John Slater said that one suggestion brought forward by Mr. Blomfield was an exceedingly useful one—viz. as to giving schoolboys some slight acquaintance with architecture. If the class-rooms could be embellished by good photographs or drawings of our cathedrals the scholars would early begin to realise a little of what was such an important thing—viz. the great connection between the buildings of a country and the history of a country. Even a slight knowledge of architecture must be of great interest and use to the people who had gained it. As to the effect of such education on modern architecture, he did not think it would be much;

and as to that, it was architects, and architects only, who must think of education and inspiration, and go on learning every day of their lives.

Mr. Beresford Pite said what was needed was intelligent criticism of architecture—a school of criticism. What was wanted was guidance in the matter. The real public that they might with advantage educate was not the public from which architects derived clients, or the public which favoured them with criticism in the daily press; it was the jerry-building public, and if free classes for the education of the jerry-builder in architecture, with a supply gratis of designs for street houses, could be started, we should be doing a great deal. He was afraid of the pattern book, for people were not the simple children they had been, and they learnt from the pattern book without being better for doing so; and he was afraid that to the jerry-builders they would certainly do more harm than good.

Messrs. E. W. Hudson and H. G. Ibberson also spoke, and the author having briefly responded to the vote of thanks, the Meeting separated.

#### FRIDAY'S PROCEEDINGS.

##### The Responsibility of Local Authorities in respect of Building By-laws.

The sixth and final Meeting of the Congress was held on Friday morning at 11 o'clock, Mr. W. M. Fawcett in the chair.

Mr. Lacy W. Ridge read a paper on "The Responsibility of Local Authorities in respect of Building By-laws." He said that, so far as legislation was concerned, they must be content to wait in readiness to impress on a new Parliament the propriety of considering Bills for the extension of the metropolitan system respecting party-walls to the whole country, for some proper and equitable system of dealing with "ancient lights," and for such modifications as might be desirable in the Acts affecting buildings in non-metropolitan districts. Under the Public Health Act it was the local authority which made the by-laws, and it had power to alter or repeal them by a subsequent by-law. It was merely provided that they should not take effect till confirmed by the Local Government Board. Possibly the more important corporations might know their own power, but the constant excuse for harmful by-laws given by members of the smaller bodies he found to be that the by-laws were thrust on them by the Local Government Board. He thought that the smaller authorities and their advisers were quite without the knowledge and experience which would make them capable of struggling against the centralised Board at Whitehall, and so took whole what was sent to them. Therein architects as a body might very well effectively help those authorities. The first point on which architects ought to insist was that there should

be definite and explicit regulations as to the deposit of drawings. It was extremely objectionable that unnecessary drawings should choke up the offices of the local boards, and that architects should be called upon to leave there in perpetuity plans of their works, to be studied at their leisure by the local surveyor—possibly a rival practitioner—and by his clerks. If, for the public good, persons about to build must make and deposit plans, they should at least be informed definitely what they had to do, and be put to as little trouble, and, above all, subjected to as little delay, as possible. Next he would urge them to get the local authorities to push the adoption of the Institute's by-law on party walls [Division D, p. 451, Vol. VI., JOURNAL]. He would insist also on the alterations named under Division E [p. 452]. Finally, let them ask the local authorities to remember that it was local government which they had to administer: that they existed, not for the enforcement of a set of by-laws whether they were useful or not, but for the good of the community, and that their office would be best promoted in the matter of building when they carried with them the intelligent goodwill of those who built, which they certainly would not attain by curtailing unnecessarily the liberty of the subject.

The discussion on Mr. Ridge's Paper was opened by the reading of a communication on the subject from Mr. Wm. Henman (Birmingham). The matter, he said, must be constantly kept to the front, and reform persistently urged in official quarters as opportunities occur. Birmingham a few years ago had adopted by-laws with unreasonably stringent provisions as regards thickness of walls. Building owners protested, but could get no relief, until the city authorities themselves determined to erect some artisans' dwellings. The authorities then realised that the buildings could not be erected to pay, and had themselves to adopt the undignified proceeding of petitioning the Local Government Board for a modification of their own by-laws.

The discussion was continued by Messrs. Lewis Angell, Ralph Nevill, Maurice B. Adams, Charles Hadfield, A. E. Sawday, and the Chairman, and a vote of thanks was passed to Mr. Ridge for his Paper.

#### The Question of Engineers and Surveyors carrying out Architectural Works.

The final business of the Congress was the consideration of a series of resolutions having reference to the employment of borough engineers and surveyors in carrying out municipal works of an architectural character. The resolutions were down for motion by Messrs. Charles Hadfield (of Sheffield) and A. E. Sawday (of Leicester), and there seemed to be some misapprehension in the minds of one or two speakers at the Meeting that these gentlemen were personally responsible for

the introduction of the subject into the Congress programme. The Secretary explained that this was not the case; that the initiative had been taken by the General Committee of the Congress, who considered the matter a fit subject for discussion, and were responsible for the framing of the resolutions; and that two members of the Committee—Messrs. Hadfield and Sawday—had been requested, and had kindly consented, to bring the matter forward in the form arranged by the Committee.

The resolutions were as follows:—

1. That in the interests of architecture it is inexpedient that buildings of a municipal character be designed and erected by engineers or surveyors having no architectural training.
2. That as a matter of sound finance, and in the interests of ratepayers, it is desirable that the duties of the Borough Engineer and Surveyor should not include work of an architectural character.
3. That it is detrimental to the interests of the architectural profession that buildings of a municipal character should be designed and erected by the Borough Engineer and Surveyor.

Mr. Charles Hadfield, in moving the first resolution, disclaimed all intention of disparaging the work of the civil engineer or of the land surveyor, whose calling demanded the exercise of high skill and ability, and whose work was of the first importance for the common good, much of it calling for sympathy and co-operation with that which was peculiarly the province of the architect. But he failed to comprehend how the training of the civil engineer or the land surveyor could possibly qualify him to originate or to carry out architectural work of a character high enough to appeal to cultured people. The American Institute of Architects had taken concerted action on this subject, with the result that a considerable reform had been brought about in the direction of removing architectural work from the control of the Official Surveyor. Municipal and governmental enterprise was more intelligently developed in this direction in France, Germany, and elsewhere on the Continent than it was at present in this country, adapting itself as it did to the æsthetic feelings of the people at large; and one was glad to note that already the representatives of more than one of our important municipalities were beginning to appreciate the fact. In the Middle Ages, from the time of the social movements of the thirteenth century, the spirit which was actuating our great municipalities to-day was the factor which called into being the best efforts of the architectural craftsmen throughout Europe, and made architecture *par excellence* the art of the people; and England from the thirteenth down to the eighteenth century was no exception in this respect, as many of our older towns and hamlets still bore evidence. He regretted to say, however, that such evidence, at the inappreciative touch of the surveyor-architect, was becoming a

vanishing quantity. The ruin worked in this respect, notably in the last twenty-five years, was known only to those of them who devoted their holiday months to looking up the legacy left by a past which appreciated architecture at its true value; and it was against that all-round vulgarising and lowering of the standard of architecture to serve the needs of a grasping, sordid commercialism that he ventured upon these remarks.

Mr. J. D. Mould, of Manchester, seconded the resolution.

The Secretary read a communication from Mr. William Henman objecting that the resolutions as framed failed to express the objects they, as architects, should aim at, and that their intentions and aims were liable to be misunderstood, and might be frustrated should the resolutions be adopted in the terms in which they appeared on the paper. He moved that the following resolution be substituted as fairly embracing the three announced to be moved, and as expressing more faithfully the views of the architectural profession on the subject, viz.:—"That it is detrimental to the cause of architecture as an art, to the interests of the ratepaying public as a matter of sound finance, and to the architectural profession as a specially trained body, for salaried engineers or surveyors to local authorities to be employed in the design and superintendence of buildings requiring architectural education and experience."

Mr. C. H. Brodie seconded Mr. Henman's amendment, which was put from the Chair and lost.

Mr. H. Heathcote Statham moved that Mr. Hadfield's resolution be amended so as to read as follows:—"That in the interests of architecture it is inexpedient that important buildings of a municipal character be designed and erected by the official engineer or surveyor to the municipality."

Mr. Maurice B. Adams seconded.

Mr. Lacy W. Ridge objected to the resolutions altogether, and moved that none of them be put. Messrs. Ralph Nevill and H. Hardwicke Langston spoke in the same sense, and, Mr. Ralph Nevill having seconded, Mr. Ridge's proposition was put to the Meeting and lost.

Mr. Charles Hadfield expressed his willingness to accept Mr. Statham's amendments, but the Chairman being pressed to put the matter to the vote, a show of hands was called for, whereupon 14 voted for Mr. Statham's amendment, and 5 against.

Mr. Statham's amendment was then put as a substantive motion, and carried.

Mr. A. E. Sawday having formally moved the second resolution, Mr. Statham proposed that the question be not put, which the Meeting unanimously agreed to.

Resolution No. 3 was withdrawn without discussion, upon the motion of Mr. J. S. Gibson, seconded by Mr. Statham.

This closed the proceedings.

#### Visits to Messrs. Holloway Brothers, and to Messrs. James Powell & Sons.

On Friday afternoon the first visit was paid to Messrs. Holloway Brothers' new works at Lambeth, the chief feature of interest being the great area of machinery entirely driven by electric force. After tea, kindly provided by Messrs. Holloway Brothers, the party proceeded by special omnibuses to the glass works of Messrs. James Powell & Sons at Whitefriars, where they were met by members who had not made the previous visit. For them Messrs. Powell & Sons had also kindly provided tea.

#### The Annual Dinner.

The Annual Dinner, specially arranged this year to form part of the festivities in connection with the Architectural Congress, was perhaps the most successful event of the kind that the Institute has held for many years. Needless to say, the gracious acceptance by H.R.H. the Duke of Cambridge of the Council's invitation lent additional interest to the function and contributed in no small degree to its success. The undoubted sincerity of the welcome accorded him, and the enthusiastic reception of his remarks in response to the Royal toasts, seemed greatly pleasing to His Royal Highness. The venerable prince remained to the close of the proceedings, and on taking leave of the President expressed in the kindest terms the pleasure he had had in meeting so representative a gathering of the architects of the country.

The Dinner took place at the Whitehall Rooms on the 22nd inst. Members and guests, to the number of 270, were received by the President in the reception room adjoining the banquetting-hall, and the President afterwards presided at the Dinner. Among the guests of the Institute, besides His Royal Highness, were the Archbishop of Canterbury, the Bishop of London, Lord Welby, G.C.B., Lord Claud Hamilton, Lord Strathcona and Mount Royal, G.C.M.G., Lord Alverstone, Master of the Rolls, the Lord Mayor, Sir Henry Howorth, K.C.I.E., Sir William Richmond, K.C.B., R.A., Sir L. Alma Tadema, R.A., Sir Benjamin Stone, M.P., Sir Henry Trueman Wood, Alderman and Sheriff Sir W. P. Treloar, the Chairman and Vice-Chairman of the London County Council, Sir E. Maunde Thompson, Colonel FitzGeorge, C.B., in attendance on H.R.H. the Duke of Cambridge, Mr. T. W. Russell, M.P., Mr. A. W. Soames, M.P., Mr. E. J. Gregory, R.A., President of the Royal Institute of Painters in Water Colours, the President of the Royal College of Physicians, and Presidents of other representative bodies. The menu card, a reproduction of the front page of which is appended, was designed by Mr. Selwyn Image, Master of the Art Workers' Guild. The following is a list of the company present:—



Mr. Maurice B. Adams [F.]; Sir L. Alma Tadema, R.A., [H.A.]; The Right Hon. Lord Alverstone, Master of the Rolls; Mr. J. Macvicar Anderson, F.R.S.E., *Past-President*; Mr. Lewis Angell [F.]; Mr. Richard Armstrong [F.]; Mr. R. Stephen Ayling [A.]; Mr. Frank T. Baggallay [F.]; Mr. Thomas J. Bailey [F.]; Mr. R. Shekleton Balfour [A.]; Sir Wyke Bayliss, President Royal Society of British

Brede [A.]; Mr. C. W. Brooks [A.]; Mr. James Brooks [F.]; Mr. J. M. Brydon, *Vice-President*; Mr. G. B. Bulmer [F.]; Mr. J. J. Burnet, A.R.S.A. [F.]; Mr. J. Butler [F.]; Mr. J. Dixon Butler; Mr. T. C. Caldwell; H.R.H. the Duke of Cambridge, K.G.; His Grace the Archbishop of Canterbury; Professor S. Henbest Capper [A.]; Mr. W. D. Caröe, F.S.A. [F.]; Mr. Arthur Cates [F.]; Mr. Basil



Artists; Mr. F. W. Barrett; Mr. G. H. Barber; Mr. George Barber; Mr. Herbert J. Bartlett; Mr. Frederick Batchelor [F.]; Mr. John Belcher, A.R.A., *Vice-President*; The Rev. Canon Benham; Mr. A. Betts-Chapman; Mr. Andrew Beveridge; Mr. Hippolyte J. Blanc, R.S.A.; Mr. Thomas Blashill [F.]; Mr. Reginald Blomfield; Mr. Edward Boardman [F.]; Mr. S. Bolton; Mr. Francis Bond [H.A.]; Mr. R. H. Boyce, C.B.; Mr. James Boyton; Mr. A. R.

Champneys; Mr. H. J. Chaney, F.R.A.S.; Mr. Henry Chapman; Mr. F. Chatterton [A.]; Mr. J. B. Chubb; Dr. W. S. Church, President Royal College of Physicians; Mr. Clarence T. Coggin [A.]; Mr. Thomas E. Colcutt [F.]; Mr. H. H. Collins [F.]; Mr. W. G. Cooke [A.]; Mr. R. Elliott Cooper; Mr. W. White Cooper [F.]; Mr. G. R. Crickmay [F.]; Mr. Santo Crimp; Mr. Alexander Cullen [F.]; Mr. Alfred Culshaw [F.]; Mr. A. Cunningham;

Mr. T. W. Cutler [F.]; Mr. Alfred Darbyshire [F.]; Mr. G. B. Davis; Mr. R. Philip Day [A.]; Mr. A. Dixon; Mr. W. H. Dickinson, Chairman London County Council; Sir Thomas Drew, R.H.A., President Royal Institute of Architects of Ireland; Mr. R. Manning Driver; Mr. O. C. Edwards; Mr. W. Emerson, *President R.I.B.A.*; Mr. W. M. Fawcett [F.]; Mr. Alfred Featherstone; Dr. George P. Field; Mr. T. Phillips Figgis [A.]; Colonel FitzGeorge, in attendance on H.R.H. the Duke of Cambridge; Mr. Ernest Flint [A.]; Mr. Arthur S. Flower, F.S.A. [A.]; Mr. Norman Forbes; Mr. Montague Fordham; Mr. Sydney Fowler [A.]; Mr. George Fox [A.]; Mr. G. Frampton, A.R.A. [H.A.]; Mr. Ernest George [F.]; Mr. J. S. Gibson [A.]; Mr. William Glover [F.], *President Northern A.A.*; Mr. F. T. W. Goldsmith [A.]; Mr. R. J. Goodacre [F.]; Mr. H. R. Goodrham; Mr. Alexander Graham, *Hon. Secretary*; Mr. C. W. Greenwood; Mr. E. J. Gregory, R.A.; Mr. John Griffiths; Mr. E. A. Gruning, *Vice-President*; Mr. Albert L. Guy [A.]; Mr. Charles Hadfield [F.]; Mr. Edwin T. Hall [F.]; Mr. G. A. Hall [F.]; Mr. W. Carby Hall [F.]; Lord Claud Hamilton; Mr. Edward Hanson; Mr. F. H. A. Harcastle [A.]; Mr. H. T. Hare [F.]; Mr. J. S. Harrison; Mr. Stockdale Harrison [F.]; Mr. William Harvey [F.]; Mr. E. G. Hayes [A.]; Mr. C. Forster Hayward, F.S.A. [F.]; Mr. Frederick Hellard; Mr. G. T. Hine [F.]; Mr. A. H. Holland; Rev. Evan Hopkins; Mr. George Hornblower [F.]; Mr. Jesse Horsfall [F.]; Mr. J. G. Hossack; Mr. George Houghton; Sir Henry Howorth, K.C.I.E., M.P.; Mr. E. F. Hunt; Mr. C. Eddy Hugman; Mr. F. G. Humphreys; Mr. Percy Hunter [A.]; Mr. H. G. Ibberson [A.]; Mr. Selwyn Image, Master of the Art Workers' Guild; Mr. B. Ingelow [F.]; Mr. Arthur James; Mr. T. E. Lidiard James [F.]; Mr. H. O. Jenkyn; Mr. E. A. Johnson [F.]; Mr. George Judge [F.]; Mr. Charles King [F.], *President Devon and Exeter Society of Architects*; Mr. C. R. Baker King [A.]; Mr. Zeph. King [F.]; Mr. Samuel Knight [F.]; Mr. W. H. Knowles, F.S.A. [F.]; Mr. H. V. Lanchester [A.]; Mr. C. O. Law; Sir James D. Linton, R.I. [H.A.]; Mr. G. A. Bligh Livesay [F.]; The Right Rev. the Lord Bishop of London; The Right Hon. the Lord Mayor of London; Mr. Henry Lovegrove [A.]; Mr. Mervyn Macartney; Mr. F. Machin; Mr. T. Duncombe Mann [F.]; Mr. Ellis Marsland; Mr. H. J. Martin; Mr. E. H. Martineau [F.]; Mr. J. Douglass Mathews [F.]; Mr. L. J. Maton; Mr. Frank W. Mee [F.]; Mr. Gaetano Meo; Mr. Arthur Monckton; Mr. H. Percy Monckton [F.]; Lieut.-General Moneriff; Mr. Edward Monson [F.]; Mr. E. C. P. Monson; Mr. J. W. Morrell; Mr. James A. Morris [F.]; Dr. Malcolm Morris; Mr. J. D. Mould [F.]; Mr. E. W. Mountford [F.]; Mr. A. S. Murray, LL.D. [H.A.], *Keeper of Greek and Roman Antiquities, British Museum*; Mr. S. B. Murray; Mr. James Neale [F.]; Professor Neckelmann [*Hon. Corr. M.*]; Mr. Ernest Newton; Mr. H. J. North; Mr. John Norton [F.]; Mr. Alfred T. Osmond [H.A.]; Mr. William Osmond; Mr. C. A. Owen [F.]; Mr. William Owen [F.]; Mr. W. Kaye Parry [F.]; Mr. A. N. Paterson [A.]; Mr. William B. Paterson; Mr. W. T. Peacock; Mr. George Pearson [A.]; Mr. Frederick W. Peel [A.]; Mr. Henry R. Perry [A.]; Professor John Perry, D.Sc., F.R.S., *President Institute of Electrical Engineers*; Mr. S. Perkins Pick [F.], *President Leicester Society of Architects*; Mr. Beresford Pite [F.]; Mr. W. A. Pite [F.]; Rev. Gordon Ponsonby; Mr. C. De Bock Porter, C.B.; Mr. F. G. Hilton Price, *Director of the Society of Antiquaries*; Mr. Val C. Prinsep, R.A.; Mr. Edward S. Prior; Mr. Henry A. Prothero [F.]; Mr. G. H. Fellowes Prynn [F.]; Mr. Frank B. Rendle; Mr. Halsey Ricardo; Sir W. B. Richmond, K.C.B., R.A. [H.A.]; Mr. T. M. Rickman, F.S.A. [A.]; Mr. C. T. Room; Mr. R. St. A. Roumieu [A.]; Professor A. W. Rücker; Mr. T. W. Russell, M.P.; Mr. P. Sabel; Mr. Leopold Salomons; Mr. Albert E. Sawday [F.]; Mr. W. H. Seth-Smith [F.]; Mr. B. Priestley Shires [A.]; Professor F. M. Simpson;

Mr. Harry Sirr [A.]; Mr. John Slater, *Vice-President*; Mr. F. Bennett Smith [F.]; Mr. J. Osborne Smith [F.]; Mr. P. Gordon Smith [F.]; Mr. Sidney R. J. Smith [F.]; Mr. S. Taylor Smith [F.]; Professor T. Roger Smith [F.]; Professor Elsey Smith [A.]; Mr. A. W. Soames, M.P.; Mr. J. E. Spain [A.]; Mr. R. H. Spalding [A.]; Mr. Henry Spalding [F.]; Mr. T. R. Spence [F.]; Mr. H. Heathcote Statham [F.]; Sir Benjamin Stone, M.P.; The Right Hon. Lord Strathcona and Mount Royal, G.C.M.G.; Mr. Arthur Sykes [A.]; Dr. J. Sykes; Mr. A. W. Tanner [A.]; Mr. Henry Tanner [F.]; Mr. J. C. Tanner; Sir John Taylor, K.C.B. [F.]; Major Harley Thomas; Mr. J. Lewis Thomas [H.A.]; Sir E. Maunde Thompson, K.C.B., *Principal Librarian, British Museum*; Lieut.-Colonel J. Stratten Thompson; Mr. George Thudicum; Mr. A. Hessel Tiltman [F.]; Mr. A. M. Torrance, *Vice-Chairman London County Council*; Alderman and Sheriff Sir William Treloar; Mr. W. H. Underhill; Mr. E. M. Bruce Vaughan [F.]; Mr. H. E. Vickers; Mr. E. Vigers [F.]; Mr. F. Wallen [A.]; Mr. Thomas Henry Watson [F.]; Mr. A. Maryon Watson [A.]; Mr. Aston Webb, A.R.A. [F.]; Lord Welby, G.C.B.; Mr. Frederick Wheeler [F.]; Mr. T. B. Whinney [A.]; Mr. W. Henry White [A.]; Mr. A. Needham Wilson [A.]; Mr. Alfred Williams [F.]; Mr. F. E. Williams [A.]; Mr. R. Winder; Mr. E. W. M. Wonnacott [A.]; Sir Henry Trueman Wood; Mr. Edmund Woodthorpe [F.]; Mr. C. Woodward; Mr. W. Woodward [A.]; Mr. Charles H. Worley [F.]; Mr. R. Selden Wornum [F.]; Mr. Nash Wortham; Mr. Thomas Worthington [F.]; Mr. Thomas C. Yates [A.]; Mr. Clyde Young; Mr. G. P. K. Young [A.]; Mr. Keith D. Young [F.]; Dr. L. Unwin Young; Mr. William Young [F.]; Mr. W. J. Locke, *Secretary*, and others of the Institute Staff.

Grace was said by the Archbishop of Canterbury, and at the close sung by a Quartette of the Abbey Glee Club. A selection of Songs and Glee had been arranged to be given during the evening by the Quartette, but the toasts occupied all available time, and only two numbers of the programme were given. On the toast of "The Queen" being given the whole company joined in the National Anthem.

The President, in proposing "The Queen," said that one of the first acts of Her Majesty, after her accession in 1837, was to confirm the Royal Charter granted to the Institute by King William the Fourth. The Prince Consort took very great interest in the work of the Institute, and had occupied the chair at the Council and General Meetings.

"The Prince and Princess of Wales and the Royal Family" was the next toast given by the President.

The Duke of Cambridge, replying for the Royal Family, said we had, he hoped, finished one war, but who knew whether we were not at the beginning of another? The outlook was very remarkable, though he would not say dangerous, for he had such confidence in the Empire's resources that he felt sure we should come out well whatever might arise. Speaking of the Royal Family, he said that the Prince of Wales, the Duke of York, and the Duke of Connaught all did their best to support the interests of their country, and he himself had always tried to do so, and would continue in that endeavour as long as God's

providence allowed him. In conclusion His Royal Highness congratulated members upon the success of the Institute and of its efforts on behalf of their great art.

Mr. J. Macvicar Anderson proposed "The Church and State."

The Archbishop of Canterbury, in reply, said the profession to which they belonged, that of the art of architecture, was one of the very highest value, certainly to the Church, and in quite a different sense, he might say, to the State. Certainly to the Church, because the Church derived very great benefit from the kindling of the highest emotions which art such as that of architecture was capable at times of stirring within the soul. He could give two illustrations of the feelings with which men regarded the art of architecture. He remembered that once, as he was looking at the height and dignity of a cathedral, a very religious and good man remarked to him, "The cathedral is religion," and he meant what he said. He felt through and through that the very stones of the building, the beauty of its proportions, its associations, had the power of drawing his soul upwards. The way in which it filled the mind with the highest and most heavenly emotion, and the way in which it drew the affections—all this was a service to the Church of the very highest character. There was hardly anything which pleased the worshipper more thoroughly than to enter a building which in every line spoke of man's reverence to God, and reminded us of God's loving kindness to man. Who could go into a cathedral and observe its solemnity, its wonderful grace, and its extraordinary massing of power, and not feel that there, at any rate, he could offer up his worship when everything surrounding him helped him to do so? The second anecdote he desired to relate was of quite a different kind. He was standing once at the west front of Peterborough Cathedral, and as he stood there gazing, a man came up behind him and said, "Britisher, it is very filling at the price!" It was also a great service to the nation and the State that we had scattered about all over the land monuments of our ancient history enshrined in buildings, and that we had everywhere buildings which told us of great men of the past, and which reminded us of ancient records of what our forefathers had done. Was it not possible that in this way the art of the past inspired the lives of later generations?—and if we were to read the history of our country, as surely all true Englishmen would desire to read it, one book which told us of it in many ways, by means of stirring many emotions, was the remains of those buildings that in past times marked different epochs of the history through which the nation had passed.

The Bishop of London proposed "The Fine Arts." He said that architecture differed from all other arts in being frankly democratic. It

appealed to the eye, and nobody could escape it. From other arts we could have a certain amount of seclusion, but architecture obtruded itself upon us in some shape or another wherever we went. Architecture was a great educator, and we did not know how much a man's artistic instinct sprang from the architecture by which he was surrounded, or how much it was limited by it. How differently we were impressed when we walked down Regent Street and Victoria Street; and if we compared the two impressions we should see that architecture must necessarily form the basis of the artistic instinct of the ordinary man. Again, architecture was the nursing mother of all the finer arts, and none could exist without it. The most entrancing music would not be listened to in the drizzling rain in the open air, and pictures would lose much of their appreciation if they were not sheltered by architecture. He supposed that architects would rather that they could always work for the Church than for the State, because they would certainly have a freer hand, and need not be restricted by any regard for the personal convenience of those who would occupy the buildings. Architects had constantly to struggle against mechanical forces, which unfortunately tended to drag them down from their lofty aspirations, and therefore the necessity of constant communion with the other arts. Architects drew their inspiration from them from time to time, and it was natural that they should give them a high place in their esteem and gratitude. He was glad that there was a movement at the present time to combine the arts more closely together, and he was delighted to couple with the toast the name of one who was himself an example of that intercourse between arts—Sir W. B. Richmond, who had the opportunity of furthering the great design of Sir Christopher Wren.

Sir W. B. Richmond, K.C.B., R.A., in reply, said that the fine arts in this country were progressing with a rapidity that was quite remarkable. In the presence of this assemblage of architects he did not dare to express his opinion upon their art, but he would like to refer to two buildings—he might mention many others, but he took these two as examples. One was very near the Palace of Westminster and was received by a storm of abuse, and in the Palace of Westminster some would-be critics talked a great deal of nonsense about it. He alluded to that splendid building by Mr. Norman Shaw. The other building was by Mr. Bentley, which he visited for the first time two days ago, and he had very rarely been so impressed as when first entering that original and manly structure. With regard to art, they should not forget that at this moment there were established in London, and in various centres of commerce and industry, technical schools which were giving chances to artisans to become artists.

Never, as far as he could remember, had the crafts stood in such good stead as they stood now. It had been the fashion lately to run down English art. It had been the fashion in certain journals. Journalists had made copy out of it by running down English artists in favour of Frenchmen, but it was high time that we took ourselves seriously and respected the country in this matter as we did from a commercial, military, and naval aspect.

Lord Alverstone proposed "The Royal Institute of British Architects and the Allied Societies." He said that the Queen had throughout indicated her interest in the Institute. When the history of this century came to be written there was no art—and he spoke without exaggeration—which had shown greater development during the nineteenth century than the art of architecture. Whether they considered ecclesiastical or domestic architecture, it would be found that each branch had made immense progress during Her Majesty's reign. At the beginning of the century architecture had perhaps fallen as low as it possibly could. One could not imagine anything more depressing than to pass through streets of houses built in the early part of this century; and the same remark applied to many churches throughout the country built at the same period. We had seen what changes had taken place in ecclesiastical architecture by the art of such men as Scott, Pearson, and Blomfield; and during the last twenty or thirty years there had also been a most extraordinary development in domestic architecture. Houses were now being built upon more liberal plans, and crowning pieces of architecture were springing up in all directions. There had indeed been enormous progress, and the Institute had contributed to it in no small degree. Of late years the Institute had allied itself with kindred societies in every part of the United Kingdom and even in the colonies, and he rejoiced to think that in the mutual communication between the Allied Societies and the Institute professional men could learn from one another. They all had opportunities of communicating ideas, and this was of immense value.

The President, in acknowledging the toast, said he was happy to tell them that, with regard to the prosperity of the Institute, their numbers were at the present time considerably in excess of what they had been in any previous year; and he might also say that the influence of the Institute was yearly extending. Scarcely a week passed without the Institute being asked for its opinion and advice from all parts of this country and the colonies. The prosperity of their body must depend a very great deal upon the way in which they followed out the ideal that was in the minds of the founders of the Institute; and that ideal was clearly stated in one of the clauses of their

Charter. Their aim was a high one, and they had always kept it before them in all the years of the existence of the Institute. With this aim in view they some years ago instituted examinations for the improvement of the rising generation of architects, and in later years these examinations had become compulsory. No person could now become an associated member without having passed a very fair examination in practical knowledge necessary for the carrying on of his profession, and also in design. Mr. Ruskin wrote that the study of the beautiful in nature and art might tend to elevate humanity and lead them to a higher life. Architecture should teach us good lessons. Were this idea carried out in our architecture, what object-lessons a walk through our streets would present to-day! Our churches and other places of worship would teach us the beauty of religion; our hospitals and asylums and poor-law buildings would teach us the beauty of charity; our mercantile buildings would illustrate the beauty of honest hard labour; our Government buildings the beauty of righteous government, and our Admiralty and War Office the beauty of patriotism. At the present time in walking along our streets how little we saw to teach us even the history of our land! It was a very hopeful sign to find a powerful public body like the London County Council, in incorporating a great change like the Holborn and Strand Improvement, desiring to secure the co-operation of architects in obtaining a fine scheme for this great metropolitan improvement; but he was not quite sure that the London County Council had altogether grasped the difficulty which surrounded such an undertaking, or that they had proceeded in the right way. In order to obtain fine designs they offered a small premium to certain architects to prepare designs, with the condition attached that the drawings were to remain the absolute property of the London County Council to do what they liked with, and that the architects were to expect no further remuneration. A fee of £250 was offered for a design of something like a mile of frontage, but the Council would not guarantee that the architect whose design was accepted should superintend the carrying out of his own work. He could not but think that this showed a lack of intelligence. The man who made the design for such a scheme as this should, if it was to be a success, carry out his own work and detail so as to be able to realise his imagination. He did not think that in the public interest it could be considered encouraging to the profession, nor did he think it could be considered satisfactory in the public interest. With regard to the architects themselves who were willing to sacrifice their talents and time on such terms as these, they could only give them the highest praise and the greatest commendation.



He did not think the London County Council had in this case exercised the same large-mindedness as they had in other matters, such, for instance, as the housing of the poor, in which their action over and over again had been most praiseworthy.

Sir Thomas Drew also replied to this toast on behalf of the Allied Societies.

Mr. W. M. Fawcett proposed "The Guests," mentioning that this was the first time they had had a Master of the Rolls as a guest.

Lord Claud Hamilton, in responding, said he trusted that mere materialism would not interfere with the beauty of their architecture. They should get their representatives in Parliament to compel the Government to do its duty by affording opportunities for the art of architecture in this country. Any Englishman returning from Paris

was imbued with shame towards the architecture of this country.

This concluded the proceedings, and the guests separated at about 11.45.

#### Visit to Greenwich Hospital.

The last visit was made on Saturday to Greenwich Hospital. A hundred visitors went on by special steamboat, lunched at an hotel, and were conducted over the Hospital by Mr. William Crisp, Surveyor to the Admiralty, and over the Royal Naval College, kindly thrown open to the Congress by the Admiral President. Before leaving for London the whole party were entertained to tea on the lawn of the Old Manor House by Mr. Thomas Dinwiddie [F.]. Perfect weather contributed largely to the day's enjoyment.

### THE BENDING STRESSES ON FLAT RECTANGULAR CONCRETE FLOORS.

MR. W. DUNN, in his Paper on this subject in the Institute JOURNAL of 26th May 1900, lays down as a fundamental proposition that a square slab supported on two opposite edges is half as strong as the same slab supported on its four edges. He quotes Professors Rankine and Unwin in support of this proposition.

Professor Unwin is happily in the land of the living, and able to answer for himself. But as Professor Rankine has long since joined the great majority, we who survive may be permitted to protest against such misinterpretation of his teaching as we may occasionally have thrust upon us in his name.

Rankine himself would have been the last to claim infallibility, or to impose his own authority in spite of natural law. Therefore, in the passage which Mr. Dunn has unfortunately chosen for his own purpose, Rankine expressly cautions his readers that "the following formulae are founded on a theory which is only approximately true, but which, nevertheless, may be considered to involve no error of practical importance." The seven formulae immediately succeeding this caution are for the following conditions:—1. Square plate, load uniformly distributed; 2. square plate, load collected in the centre; 3. oblong plate, load uniformly distributed; 4. oblong plate, load collected in the centre (length being less than 1.19 breadth); 5. oblong plate, load collected in the centre (length being equal to, or greater than, 1.19 breadth); 6. circular plate (of diameter equal one side of square plate referred to in 1 and 2), load uniformly distributed; 7. circular plate, load collected in the centre.

Of these seven formulae Mr. Dunn selects Case 3 as serving his purpose. He passes over Cases 1 and 2. But Cases 1 and 2 contain very

plain proof that Rankine did *not* teach, as Mr. Dunn teaches, that plates resting on their four edges are only twice as strong as when resting on two opposite edges. These two formulae are as follows:—

Case 1, square plate, load uniformly distributed:

$$M = \frac{Wb}{16}.$$

Case 2, square plate, load in centre:

$$M = \frac{3Wb}{16}.$$

It becomes necessary to inquire, how did Rankine arrive at the conclusion, expressed in these formulae, that the square plate in Case 2 is three times more severely stressed than in Case 1? These formulae appear on p. 544 of *Civil Engineering*, and we may find our question answered by referring to page 152 of the same great work, where the following passage appears:—

"The common centre of gravity of a set of bodies whose several centres of gravity are known is the centre of parallel forces for the weights of the several bodies, each considered as acting through its centre of gravity."

If now we apply this doctrine (which is not peculiar to Rankine, but is simply the ordinarily accepted doctrine of the resultant of parallel forces) to Cases 1 and 2 above quoted, it is easy to see that when the load is concentrated on the middle of the square plate, its leverage, and therefore its stress, is three times greater than when equally distributed; for, in the case of equally distributed load, each bearing-edge of the slab supports one quarter of the total load disposed over a triangular area whose centre (as at

$x$  on fig. 1) is at *one-third* the perpendicular height of each triangle, *i.e.* at one-third the distance from the bearing edge to the centre of the plate.

When Rankine assigned to Case 2, as per formulæ above quoted, three times the stress of Case 1, he did so simply because it was obvious to him that the leverage from the centre of the plate to its edge is three times greater than from  $x$  to edge.

Rankine nowhere stated, as Mr. Dunn has, that the plate on four edges has but *twice* the strength of plate on two opposite edges only.

The principle above quoted, which governs the resultant of parallel forces, renders undeniable the

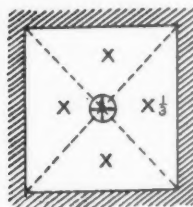


FIG. 1.

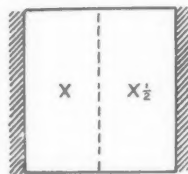


FIG. 2.

fact that a square plate on its four edges is *three times* stronger than on its two opposite edges only.

Thus (see fig. 2) it is obvious that when only two edges of the square are supported, *half* the total weight distributed uniformly over the plate bears on each edge, and has a leverage of *half* the distance from bearing edge to middle of plate.

If, then, we say the whole load = 4 tons, and the breadth of the square plate = 6 feet, in the respective cases referred to the stresses would vary as follows:—

Square slab resting beam-like on two ends, and load equally distributed:  $M = 2 \text{ tons} \times 1\frac{1}{2} \text{ feet} = 3 \text{ foot-tons}.$

Square slab resting on two ends, with load all on middle:  $M = 2 \text{ tons} \times 3 \text{ feet} = 6 \text{ foot-tons}.$

Square slab resting on four edges, with load equally distributed:  $M = 1 \text{ ton} \times 1 \text{ foot} = 1 \text{ foot-ton}.$

Square slab resting on four edges, with load on middle:  $M = 1 \text{ ton} \times 3 \text{ feet} = 3 \text{ foot-tons}.$

Thus we see that a square slab, resting on four edges and loaded in the middle, is equally stressed by that load as would be the same slab resting on two ends only and having the same load equally distributed.

The fact that this doctrine does not agree with Mr. Dunn's theory of "elemental strips" suffices to put the latter out of court. Mr. Dunn's theory of the strips fails, because, though it would hold good of the *two* strips only, if there were only the two,

as his diagram fig. 2 shows, it cannot possibly hold good where there are a great number, so to speak, of strips crossing each other, not once only, as in sketch A, but very many times, as in sketch B.

Much more might be advanced in disproof of this "elemental strips" theory adopted by Mr.



A



B

FIG. 3.

Dunn; but the fact that it fails to agree with the well-known laws which determine the action of parallel forces is disproof enough.

As regards rectangular slabs, the confessed imperfection of the Rankine formulæ 3, 4, and 5 above quoted is manifested by the proposed division of such slabs arbitrarily into two groups, one whose length does not exceed 1.19 breadth, and the other whose length does exceed that empirically assigned limit.

Mr. Dunn agrees with or quotes Rankine when he says that the tendency of the rectangular slab is to split along its long axis. But that crude statement calls for material qualification.

The slab supported on four edges will split along lines whose directions are determined by the leverage of the load, and that leverage is governed by the shape of the slab.

Thus if the slab be square, the tendency is to begin splitting from the centre, which is the point of greatest stress, and to continue splitting along the mitres towards the corners of the slab, so that in the result the slab will be broken into four triangular pieces of equal area, equal leverage, and equal length of supporting edge. The tensional strength of the slab resists this splitting tendency on the under side of the slab, while the compressional strength resists it on the top side. It is very noteworthy that these tensional and compressive resistances

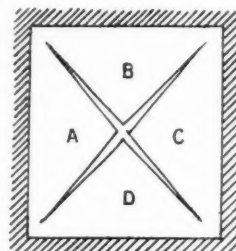


FIG. 4.

act normally, or at right angles, to the mitre lines along which the crack seeks to take effect, and if we realise what this state of things involves, we shall come to understand that the four quarters, A B C and D, are dependent on each other for support. By their mutual juxtaposition and cohesion these four quarters do not in the least degree burden each other, but really assist to sustain each other, both by their mutual tensions and compressions one against the other.

Bearing this fact in mind, when we come to consider the stress conditions of rectangular slabs, we find that as  $c$  does not in any degree increase

the stresses on B and D, but really balances them, so likewise X balances the stresses on W and Y. If we consider C and X as *one*, we may regard this *one* as the *keystone*, supporting, and being supported by, the stones B D W Y. We may distinguish the stresses in these slabs as those at the mitre lines and those at the edges; and we may thus come to appreciate the fact that, in comparing the square slab to the rectangular slab of equal breadth but double length, there is no difference whatever between the intensity of greatest stress in the two; for each edge-stress is absolutely equal, and each mitre-stress is also equal; and as to the divisional line between C and X, this is under exactly the same kind and degree

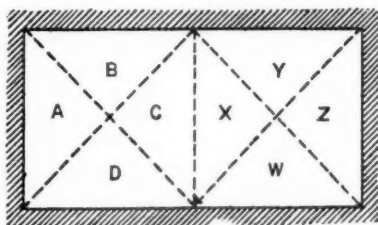


FIG. 5.

of stress as each of the edges. It may be objected, How can that be so when the support under that line is removed? The answer is that the horizontal stresses in C being balanced by those of X, no vertical stress results so long as the juxtaposed edges of C and X can endure the horizontal stress.

A practical appreciation of this view of the case will render unnecessary, as well as misleading, the diagrams prepared by Mr. Dunn to show a variation (which does not exist) between the stress of square slabs and the stress of equally thick rectangular slabs of equal breadth to the square. For while the above considerations make evident the fact that the stress on the rectangular slab is the same as on the square slab of width equal to that of the rectangle, Mr. Dunn's diagram fig. 3 shows that the rectangle whose length is twice its breadth has to bear a bending moment *in excess of* that of the square slab of equal width, as *·94 exceeds ·5!*

As an improvement on fig. 3, Mr. Dunn offers fig. 6, a diagram which shows that a slab of given width, whose length is twice its breadth, has a bending stress *less* than that of a square slab of equal width, as *·352 is less than ·375!*

It is hard to understand how Mr. Dunn's fig. 3, which represents the rectangular slab of width equal to that of the square, and of length double that width, as having a bending moment greater than that of the square, as *·94 exceeds ·5*, can be reconciled to his fig. 6, which represents that the bending stress on the square slab is greater than that of the rectangular slab before described, as *·375 is greater than ·352*.

I am sorry to have thus to criticise a Paper which bears evidence of painstaking study; but surely while Mr. Dunn thus differs from himself, he will not wonder at others who find it impossible to adopt his mode of reasoning, or his contradictory conclusions.

FRANK CAWS.

Sunderland: 18th June 1900.

## REVIEWS.

### ARCHITECTURAL COMPOSITION.

*Principles of Architectural Composition: an Attempt to Order and Phrase Ideas which have hitherto been only felt by the Instinctive Taste of Designers.* By John Beverley Robinson. With an Introduction by Russell Sturgis. Dedicated to William Robert Ware, Professor of Architecture at Columbia University. 80. New York. 1899. Price 10s. net. [The "Architectural Record" Co., New York; London Agent, B. T. Batsford, 94, High Holborn, W.C.]

We are inclined to think that this book will be voted by the majority to be stiff reading, supposing it to escape the more summary and descriptive verdict, characteristic of students, one which we are bound to say suggested itself after two or three struggles with its intricacies. In the first place the book is very American in drawing its illustrations from any and every source, quite ancient or most recent, so that you are presented with argumentative illustrations such as, say "a

Commencement Hall" from New Jersey, and a drawing of Norwich Cathedral, on one and the same page. It requires an unusual elasticity of mind to adjust one's perceptions with such rapidity as this, and we fear that some otherwise excellent argument may often be somewhat obscured by the repellent effect of its illustration.

What we understand to be the tendency of the book is one towards a theory, capable of demonstration, of right and wrong in architectural grouping, the basis of proof being essentially mathematical in character, and depending on theorems such as that equal parts, double composition, and equal triple division, &c., are all bad. In fact, at times we are reminded of the dry *catalogue raisonné* methods of Whewell's day, while in other places the impression forces itself upon us that we are dealing with nothing more substantial than the common rules or prejudices of the studio elaborated into book form.

The author takes care to dismiss unmanageable examples by attributing our pleasure in them to

superadded qualities, as richness, association, colour, &c. This, of course, clears the ground, but also largely begs the question; for before we can draw up our theorem we must establish the basis of facts, the preliminary difficulty being to determine which are the beautiful buildings.

As men decide these questions for themselves, we have only the basis of general agreement, a *status* of admitted and constant admiration, to work upon; and, by a most useful convention, we agree to draw our principles from a study of old work possessing these characteristics. Now, as it seems to us, the drawback of such books as that under review is that of sending the student to his task with arbitrary preconceived notions of good and bad, calculated to check his own perceptions and to bias his judgment, before he has slowly and patiently mastered the facts. Prematurely stimulated, criticism is likely to check that diligent study which is the only sure basis for sound opinion, and rapid methods of determining the right and wrong of ancient architecture are, therefore, to be viewed with suspicion.

Further, there is considerable danger to designers in such easy roads to composition, in that architectural design cannot be divorced from considerations of suitability, material, convenience, sentiment, and association, all of which are gail and wornwood to the constructors of theorems for design, because of the impossibility of including such elements in their system.

The more study, however, we give to old work the more convinced we are likely to become of the constant presence of such factors in past, as in present, work, and, consequently, the more sceptical we are as to the truth of these abstract methods of classifying good and bad work.

Nesfield, we know, was a devoted student of old Sussex cottages, and attributed much of his skill to their study, and here, at any rate, we can see that successive growth has had much to say in the charming grouping that they present. It seems to us important for a student, therefore, confronted with the difficult problems of modern design, to have at his command a stored recollection of old instances that will aid him in devising a way out of his difficulties. This will be far more conducive to spontaneous and successful design than what may be, after all, only a system of set prejudices, however much decked out as principles of mathematical certainty.

Take, for instance, the most favourite and plausible objection—that of dividing equally. The author admits the three equal stories of the Farnese Palace,\* but adds that the great cornice at the top gives unity. Exactly; and so an elevation

on paper equally divided will not be seen as such should the upper story be projected forward. Again, six inches of additional height will not appreciably affect the mathematical division of the design, but should it represent the depth of the eaves, having a flat soffit of some projection, it will powerfully influence the visual proportions of the building when erected. Considerations of this kind have always discomfited the triangular theorist, as in this book we observe that a diagonal system is equally astray, owing to the difficulty of placing the points from which any such lines are to be drawn. On an elevation of the Farnese as given in this work, for instance, the line starts from the outermost lower corner of the stone seat at the base of the wall, and ends at the necking of the great cornice below the frieze. On the facade of a Greek temple, however, it reaches from the outer edge of the column, above the steps, up to the point at which the projecting soffit of the cornice commences; the latter is obviously a better, but still it is a different, system.

Again, in dealing with tower design, on an elevation of an American version of the Giralda, diagonals to each story are given, but it is impossible to say on what principle they are drawn. The writer happens to have made a careful measured drawing of the Spanish original, and has been at pains to draw on it diagonals similar to those in the book, while at the same time suggesting by a dotted line what would appear to be more, or equally, rational points of departure. The result is of a very inconclusive character, and quite fails to suggest either that such a system was thought of by the designer, or is the reason of its admitted gracefulness. On the other hand examination on the spot does reveal a governing condition of the design, and that is the existence of the inner shaft of the original Moorish Tower which would not perhaps otherwise be suspected, but which is now displayed by the stripping off of the plaster coating. The Renaissance architect of the upper stages of the Giralda overcame—with a success to which the admiration of generations of subsequent artists has testified—local difficulties that might have beaten a weaker man. For, in spite of its rough and somewhat primitive detail, the general effect of the tower is a triumph of grace and beauty, in proportion and outline. It is, of course, open to the author to hold that the revision excels the original, just as a countryman of his at Seville expressed his indifference, on the ground that when at home he resided near Maddison Square!

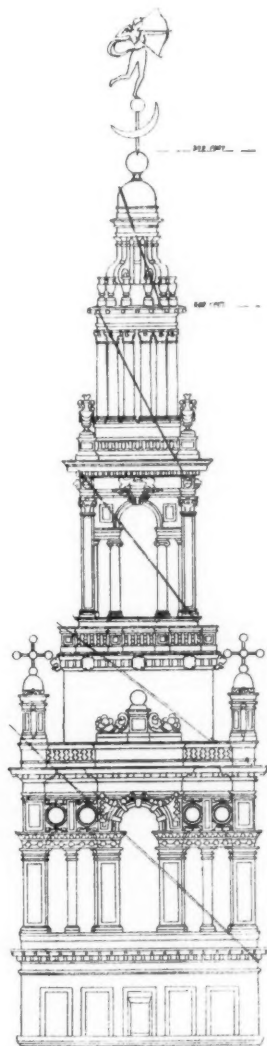
In regard to another point we think most students will agree with the general proposition that a certain scale of proportion may run through a design—i.e. that in tall buildings openings, &c., will be elongated, as in low, sturdy examples they will be similarly squat. In old cottage design, for instance, windows, many lights wide, are pre-

\* It is known that Sir Charles Barry in the Reform Club departed from this idea with regret, while suiting his third tier of windows to its modern condition of a bedroom floor.



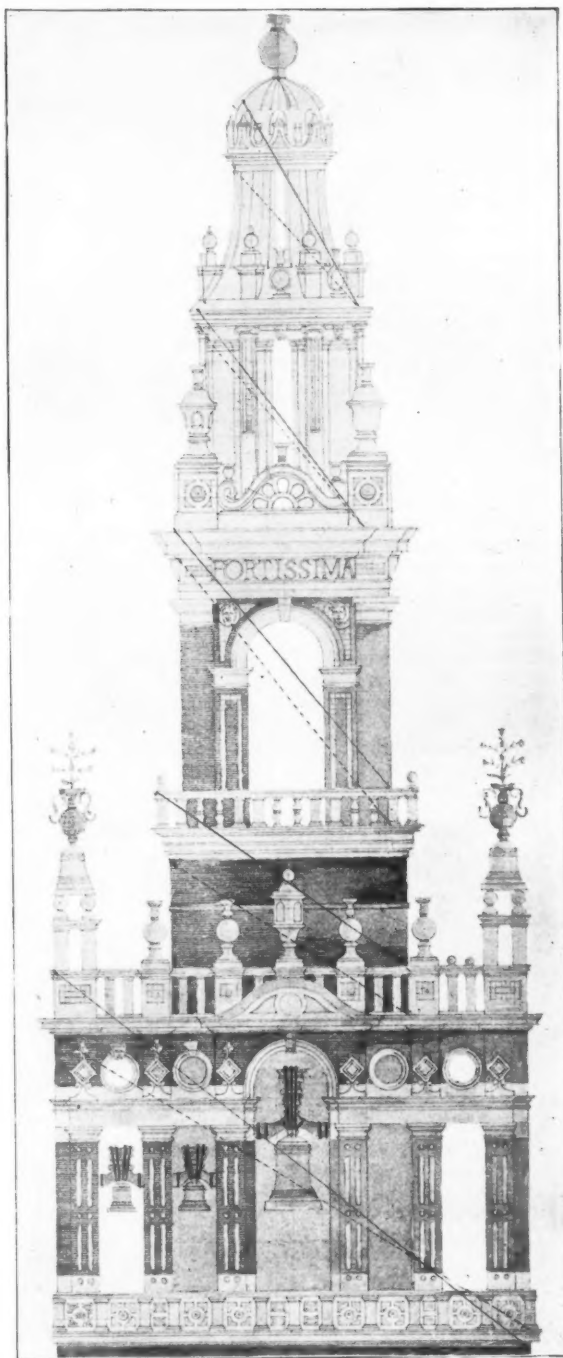
*Pitch of the Diagonals.*

PLAN	STAGES	GIRALDA		MADISON Sq.
		Solid	Dotted	
Square . . . . .	1	29°	33°	45°
“ “ “ “ “	2	36°	35°	39°
square with cir- cular angles	3	52°	53°	52°
Circular . . . . .	4	54°	51°	61°
“ “ “ “ “	5	60°	49°	72°



UPPER PART OF TOWER OF MADISON SQUARE GARDEN.

Each story above the lowest is elongated upward beyond the arithmetical ratio.



*A. T. B., mens. et del.*

ELEVATION OF THE GIRALDA AT SEVILLE, FROM A SURVEY.

The solid lines are drawn from the same points as on the American example; the dotted lines suggest more definitely leading points from which such lines could as well be taken. See table of pitch of diagonals.

ferable to narrow, transomed openings; but even such a proposition as this we should require to check by overhauling a number of instances, as, in matters of art, exceptions are more important than rules. Ferrara Cathedral, for instance, possesses an admired façade, though it is here pilloried for its triple equal division.

The appearance of this book is another symptom of a revolt against the merely utilitarian basis of design in architecture, is evidence of the same instinct that best accounts for the modern American *furor* after École methods of design. Overdone with practical considerations, the architects seem willing to accept wholesale all the old classical conventions, and to find in such repetitions as the Chicago Fair buildings a complete artistic standard.

It is unlikely that this is a permanent mood, in that it runs contrary to the drift of modern thought, which prescribes adaptation to the circumstances of the case as the surest method of ultimate mastery. That there is a final law of beauty, co-ordinating the apparently irregular manifestations with which we have been endowed, is inherently probable, however little likely its complete elucidation may appear. It is quite certain, however, that its basis is infinitely wider than any merely mathematical system, while it is uncertain that, under our conditions, we need for our work anything beyond a due cultivation of our natural perceptions of beauty.

A. T. BOLTON.

#### PRACTICAL BUILDING CONSTRUCTION.

*Practical Building Construction: a Handbook for Students preparing for the Examinations of the Science and Art Department, the Royal Institute of British Architects, the Surveyors' Institution, &c. Designed also as a book of reference for persons engaged in building. By John Parnell Allen. 3rd Edition. 80. Lond. 1900. Price 7s. 6d. [Messrs. Crosby Lockwood & Son, Stationers' Hall Court, E.C.]*

The chief interest in the book described as *Practical Building Construction*, by J. P. Allen, third edition, revolves around the announcement on the title page that the work is a handbook for students preparing for certain examinations, among them that for the Royal Institute of British Architects. By this a claim is laid to a certain standard of usefulness; how much of the claim is justifiable remains to be shown.

Clearly a text-book for students should before all things be scientifically accurate in its facts and precise in its definitions. To what extent these essentials prevail may be gathered from the following extracts. In the first paragraph we read that

"bricks, the chief material of the bricklayer, are hard rectangular blocks of an originally clayey substance which has been tempered and moulded into the shapes required, and then burnt in a clamp or kiln until it is quite hard."

This is scarcely precise enough for a student. Again—

"Rubber bricks are of a soft, sandy nature, capable of being cut, carved, or rubbed into any shape or form."

So far correct; but note what follows:

"They are made near Birmingham and Bracknell, and should be compact, of uniform colour, texture, and hardness, so that they cannot be scored with a knife even in the centre," &c.

It is not easy to reconcile these two descriptions.

Turning to Mouldings in Joinery we find them described as

"a series of sinkings and projections of various forms, mostly parts of circles, ellipses, &c., worked on the edges of the wood to produce light and shade by shadows, and give it an ornamental and showy appearance."

This is not a very happy description of a moulding.

Dealing with water supply the author says, to reduce the risk of freezing to a minimum,

"on entering the house a stop-tap should be placed below a bib-tap, so that all the water in the house can be drawn off after the stop-tap is closed; and from thence the pipe should be run on internal walls within wooden pipe casings to the cistern, the supply to boiler from thence being fixed in casings grooved to allow of the hot pipes going in the same casing, and yet not contiguous [*sic*] to the cold supply, a more or less ornamental cover being screwed on to hide the pipes."

Without fuller details of the system indicated, the student would find difficulty in understanding the proposal. The idea of carrying hot and cold water pipes in one casing, shown in the book as in an enlarged electric wire casing, is barely practicable. To screw them up with an ornamental cover is an aggravation of the difficulty.

Under the head of staircase landings the student may read that in best work the boards of the landing are not nailed down, but are secured to the joists with hardwood buttons. The author's illustration of best work leaves something to be desired. In any position a button-blocked landing, as here shown, would be of no value.

Some inaccuracies in the descriptions of materials and workmanship may be detected. To speak of "copal varnish as a mixture of resin and oil or turpentine" ignores the existence of copal. Plate glass, the student is told, has an advantage over "sheet," in that it is stronger and less affected by atmospheric influences, while it cannot be cut noiselessly with the diamond, which renders it an enemy of burglars. The facts are, thickness for thickness, "sheet," is stronger than plate. Polished plate in store is very easily affected by moisture, and polished plate also is more easily cut than sheet glass.

The illustrations in this book are of very uneven character; although many may be unexceptionable, some are misleading. For instance, the text states how the material should be disposed in cast-iron girder forms; the author's drawing of an ideal section, however, exactly embodies the

defects that should be avoided. In one case a view of a timber stage and hoist is given which exhibits a most comical knowledge of the laws of perspective.

The chapter upon strains in structures is perhaps less open to exception than other parts of the book, although here the author has not quite grasped the needs of students, unless indeed he presupposes an intimate knowledge of applied mechanics on their part. The setting down of the varying formulæ for ascertaining the amount of strain set up in beams variously loaded, without explaining how the variations of formulæ are evolved, is not sufficient for a proper understanding of the science. Again, the involved system of lettering on the trusses and reciprocal diagrams, as given in the section on strains in roofs, is needlessly confusing. There is no better system than the one in which the same series of letters serves for both diagrams.

In these days of intense specialism it is perhaps difficult to produce a reliable handbook on all branches of practical building construction. The claim that this work is a handbook for students preparing for examination evidently assumes that a severe test has not to be met. In literary style the book is not strong, and in general accuracy not unimpeachable. A student preparing for the Institute Examinations would be well-advised to read works dealing exclusively with such specialised subjects as sanitation, strains in structures, &c. Too great a faith in the practical building construction set forth by Mr. J. P. Allen might lead to disappointment.

SYDNEY B. BEALE.

#### THE TRIBUNAL OF APPEAL.

*The Tribunal of Appeal under the London Building Act. Manual for Appellants, by Charles H. Love, Clerk of the Tribunal. 80. Lond. 1900. Price 3s. 6d. [P. S. King & Son, Orchard House, Great Smith Street, S.W.]*

The author of this useful little book in a prefatory note says that it is within his knowledge that applicants for consents under the Act who deem themselves aggrieved by the decisions given either by the Council or its District Surveyors, or by conditions imposed with a consent, sometimes abandon their application or accept the qualified consent as final, under the erroneous impression that an appeal to the Tribunal involves necessarily the employment of counsel and other legal aid, and consequent expense. This is not the case. The Statute (sec. 183) gives the Tribunal power to hear appeals either by the parties interested *in person* or by counsel, solicitor, or agent, as the appellant may think fit.

Without any desire to swamp the Tribunal with appeals one may suggest that it is well to bear this in mind. The Tribunal, as we all know, or ought to know, consists of three members, appointed respectively by a Secretary of State,

our Institute, and the Surveyors' Institution, our representative, Mr. Arthur Cates, having been all through the Chairman, with Mr. J. W. Penfold, F.S.I., and Mr. A. A. Hudson, Barrister-at-Law, at present his colleagues.

No architect at any rate, therefore, need fear to state his case before two such surveyors and a specially qualified lawyer, whose works on building law and practice are so well known. The sections of the Building Act constituting the Tribunal are Nos. 175 to 186 inclusive, and Regulations as to Procedure and Fees made thereunder by the Tribunal are set forth fully in the book under review. These having, as required by the Act, received the approval of the Lord Chancellor, have of course the force of law, and must be studied carefully by appellants.

The book further sets out in tabular form the sections of the Act which make provision for an appeal to the Tribunal, giving the number of the section and sub-section, the scale of fees payable under the regulations (higher or lower), the subject-matter of the allowed appeal, and by whom the appeal may be made.

There are no statutory forms of notices, but the author both wisely and kindly gives on page 39 a suggested form of Notice of Appeal, which, coming as it no doubt will into general use, should help both him (the clerk) and the appellant. It is cheering to read that "in the ordinary course an appeal may be made, heard, and decided in less than three weeks, except in vacation times." What a joyous prospect this opens out when we get—as we surely shall—this Tribunal to settle rights of light! Why should they not, as well as lines of frontage and the necessary giving up of land, the widening of streets and determination of width required, space at rear of buildings, the tricky questions involved in treating corner sites or those which are very irregular, the question of allowing or refusing the erection of houses on low-lying land—all matters interfering with the existing rights of property owners?

On all questions of *fact* referred to them the Tribunal's decision is final; but on any question of *law* a case may be stated for the opinion of the High Court. And it is not without interest to know that a register is kept of appeals made, and that all documents, plans, and orders are filed and open to inspection on payment of a small fee (3s. 6d.). A list of the appeals heard and decided to date is given in a table showing the situation of the building or place, the date of order, what the decision was, and—a most valuable column—where a report of the case can be found, *e.g.* *Estates Gazette*, *Solicitors' Journal*, *Builder*, &c. &c.

This brief note on a superlatively handy little book, which all London architects and surveyors should have alongside their Building Act, may well close with the note that all communications

and inquiries as to appeals should be made to the author, Mr. Charles H. Love, Clerk of the Tribunal, 13, Great George Street, Westminster, S.W., and that all appeals are heard at the Surveyors' Institution, in the same street.

C. H. BRODIE.

#### Architects' Benevolent Society.

In accordance with the resolution passed at the Annual General Meeting of the Architects' Benevolent Society a circular letter of appeal was issued on the 14th inst. to members of the Institute, incorporating the statistics produced by Mr. Arthur Cates, with the object of showing how inadequately the Society is supported by the general body of members. The officers of the Society regret that so far the appeal has not met with the generous response that was anticipated, but it is hoped that further subscriptions will be received before the final result of the appeal is published. The letter was as follows:—

*Architects' Benevolent Society: 14th June 1900.*

DEAR SIR,—At the Fiftieth Annual Meeting of the Architects' Benevolent Society it was decided that the following facts should be brought before the attention of the members of the Royal Institute of British Architects.

Fifty years of continuous exertion by successive treasurers and secretaries and repeated appeals by the Presidents of the Royal Institute have resulted in the accumulation, by donations and bequests, of a capital of £10,551 6s. 1d., the interest derived from which is available for the purposes of the Society.

Of this capital sum £5,835 17s. has been contributed by twenty-four benefactors, £1,000 of that amount having been the gift of two gentlemen not members of the profession.

The total number of subscribers is 285, who among them contribute an income of £476 9s. Of these annual subscribers (apart from four special contributors) there are 10 at £5 5s. each, 9 at £3 3s., and 262 at various sums from 5s. to £2 2s.

Of the 618 Fellows of the Royal Institute only 191 are donors or annual subscribers, or both. Of these 117 have contributed £1,867 10s. 6d. to the capital, while 138 are annual subscribers to the amount of £218 7s. 2d.

Of the 993 Associates only 54 have contributed to the funds of the Society; 37, as donors of from 2s. 6d. to £21, have given £137 11s. 6d. to the capital, while 38, as annual subscribers, contribute £42 4s. 6d.

We make no comment on these facts and figures beyond trusting that it may be only necessary to bring them before the Fellows and Associates of the Institute to secure for the Society a measure of support more commensurate with the number of members than is at present the case.

It was hoped that the jubilee of the Society might be celebrated this year by a public dinner, but the idea was abandoned owing to the many calls upon private means in consequence of the war in South Africa. Still, the occasion should not pass altogether unrecorded. The arts of peace have their victims, not less deserving of sym-

pathetic aid than the arts of war; and it is to such as these, to the victims of poverty and old age, to the victims of destitution through ill-health, to the victims of death—the widows and orphans who have been left insufficiently or totally unprovided for—it is to these that this Society has been quietly and effectively ministering for the last fifty years.

We earnestly hope that you will show your appreciation of the work accomplished by the Society in the past by giving it your active and generous support now and in the future. For to whom shall members of our profession look when in distress if not to their more fortunate brethren?

We are, dear Sir, yours very truly,

WILLIAM EMERSON, *President.*  
PERCIVALL CURREY, *Hon. Sec.*

**Obituary.**—The death is regretfully recorded of Mr. William Milford Teulon, of Leamington, who was elected an Associate in 1854, a Fellow in 1860, and was placed on the List of Retired Fellows in 1889.

#### MINUTES. XVI.

At the Sixteenth General Meeting (Ordinary) of the Session, held Monday, 18th June 1900, at 8.30 p.m., the President, Mr. Wm. Emerson, in the Chair, with 36 Fellows (including 14 members of the Council), 32 Associates (including 1 member of the Council), 4 Hon. Associates, and numerous visitors, the Minutes of the Meeting held 11th June 1900 [p. 404] were taken as read and signed as correct.

Professor Neckelmann, of Stuttgart [*Hon. Corr. M.*], was introduced by Mr. John Slater [*F.*], and formally admitted.

The following Fellows, attending for the first time since their election, were formally admitted and signed the Register—viz. Sydney Francis Bartleet, Frederick Batchelor (Dublin), William Carby Hall, President of the Leeds and Yorkshire Society; Charles King, President of the Devon and Exeter Society; Frank Walter Mee (Manchester), and James Diggle Mould (Manchester).

The President having delivered an Address on the Presentation of the Royal Gold Medal to Professor Rodolfo Lanciani, of Rome [*Hon. Corr. M.*], a telegram from the Professor tendering his thanks to the Institute was read, and the Medal was received on his behalf by Count Carobbio, one of the Secretaries to the Italian Embassy.

A series of photographs taken in Greece by the late Mr. Ernest George Spiers having been exhibited by means of the lantern, and described by Mr. F. C. Penrose, F.R.S., *Past President*, a vote of thanks was passed to Mr. Penrose by acclamation, and also to Mr. R. Phené Spiers, F.S.A., for the loan of the lantern slides.

The proceedings then closed, and the Meeting separated at 10 p.m.

#### THE ANNUAL ELECTIONS.

##### Practice Standing Committee.

The name of Mr. Thomas Harris, with 243 votes, elected to serve on the Practice Committee for the ensuing Session, was omitted from the Report of the Scrutineers printed in the last number of the JOURNAL.



